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Geological and Geochemical investigations of the McKellar Property (2017)

Introduction

Claim 4261176 (16 units) was staked as part of a group of claims in 2016 to cover a portion of an exhalite unit that extends for some 20 km around a major anticline consisting of folded felsic and mafic volcanic rocks. The claims enclose several VTEM anomalies that either, have not been drilled, or have seen only a few shallow drill holes. The 2017 program was designed to:

1) Determine if there were metal geochemical anomalies associated with the undrilled VTEM anomalies on Claim 4261176;
2) Examine the Alvey mineral occurrences; and
3) Determine the extent and type of alteration presence in the area.

Preliminary examination of the area showed that the distribution of exhalite and other rock types were different from that shown on the available geological maps. Consequently, geological mapping of the area was initiated with sampling of rock units for a detailed rock geochemical study.

Activity

The writer (Prospector License 1010223) and sampler left Winnipeg on August 4th and travelled by truck and trailer to Neys Campground near Marathon, Ontario. Arrived mid-day on the 5th and proceeded to locate and reconnoiter the ATV trail to the Alvey occurrence. Eleven days were spent collecting soil samples, stripping outcrop by hand, and geological mapping on Claim 4261176. Access was provided by an eight wheel Argo Conquest. Soil sampling was difficult due to the presence of angular boulder fields on the south side of the hill north of the Alvey occurrence. Geological mapping required the peeling of moss and thin overburden from outcrop to determine the location and extent of the exhalite unit, which is different than shown on the recent geological maps. We left Neys campground to return to Winnipeg the evening of August 15th and arrived late on August 16th.

In addition to the field work:

- one day was spent in sorting, documenting and packaging soil samples for shipment to Activation Labs at Ancaster.
- two days were spent cutting rock samples and microscopic examination of hand samples for alteration minerals.
- one day was spent crushing 35 rock samples for rock analyses, if warranted by soil geochemical results.
- two days were used to enter geological data and prepare maps in Global Mapper.
- two days were spent analyzing the soil geochemical data and preparation of geochemical maps for inclusion into the assessment report.
- two days were required to prepare the final report

On the basis of the analytical results from the soil samples, six (6) rock samples were selected and sent for Ultratrace 1 analyses to Activation Labs to test for pathfinder elements.

Soil samples were collected by an assistant along cut lines over a portion of claim 4261176. A total of 64 soil samples were analyzed by the Enzyme Leach analytical method at Activation Labs in Ontario. The analytical data indicates anomalous Au, Zn, Mn, Cd and Ba associated with the undrilled VTEM anomalies. Trenches at the Alvey occurrence were examined in detail to determine the nature of the mineralization. These exposures reveal that the sulphides are in part, if not all, mobilizate along late shear zones. This was confirmed by the Ultratrace 1 analyses.

The Alvey zinc zones occur much higher in the stratigraphy than the exhalite unit that occurs at the stratigraphic top of the zone of intensely altered felsic rocks. In addition, stripping and examination of outcrops revealed that there is extensive and intensive rock alteration typical of that associated with VMS type mineral deposits. A unit of coarse-grained amphibolitic rocks with random concentrations of garnet that was previously mapped as mafic volcanic rocks is interpreted to be either a product of intensely chloritized felsic or mafic rocks or a recrystallized mafic intrusion. Analyses have not been performed to determine the provenance of this amphibolite.

Location and Access

The claim is located within Walsh Township about 50 km along Provincial Highway #17, east of the town of Schreiber and about 40 km NW of the town of Marathon, Ontario. The Trans-Canada highway, a major power line and the Canadian Pacific railway occur within 1 km of the claim boundary. The location of the Alvey occurrence on claim 4261176 is shown on Figure 1. The claim is accessible via ATV trail from a point approximately 100 meters west of the Prairie River along an old drill road and a trapper's snowmobile trail. The Alvey trenches are located at UTM Zone 16 (NAD 83) 521125E/5408380N (48.828046, -86.71173) on map sheet 42D15 SE.

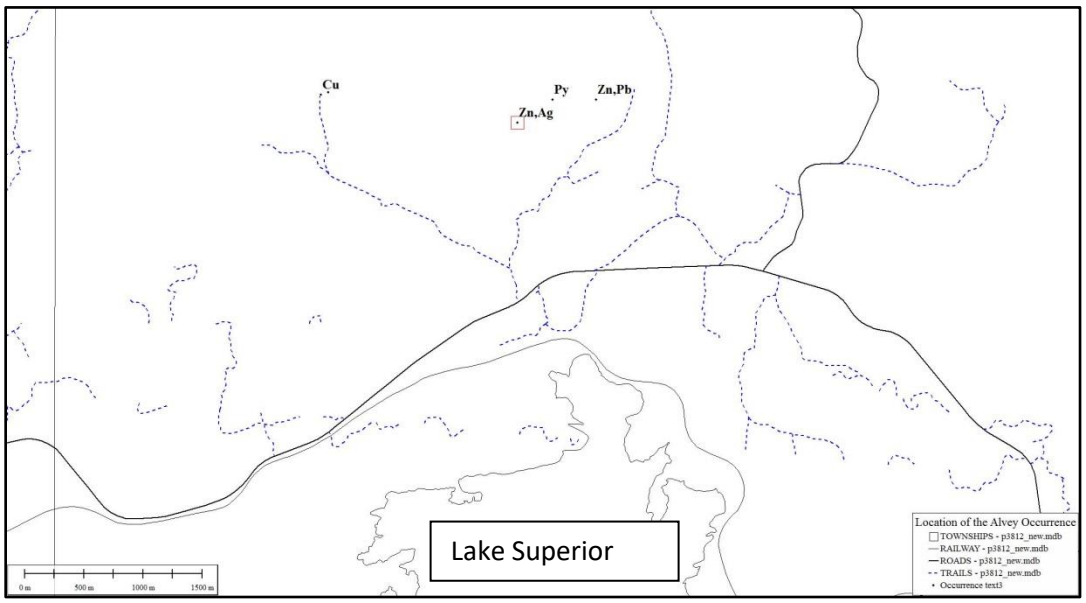

Figure 1: Location of the Alvey occurrence red box (Zn, Ag).

Previous Investigations

1903-1905: W.J. Wilson and H.W. Collins, Geological Survey of Canada reconnaissance mapping.
1953-1954: J.W.R. Walker completed OGS 1'=1/4 mile mapping of the volcanic and sedimentary 'greenstone' rocks.
1955: Marhill Mines Ltd. drilled 28 holes at the Marhill and Prairie West copper-zinc showings. An intersection of 2.5% Cu was reported in hole 27 at the Prairie West occurrence.
1968: Conwest Exploration completed a 5 hole program for a total of 443.6 feet at the Goldbar Lake copper showing. Logs indicate low copper, zinc and silver values were found over 1-1.25m core lengths.
1981-1982 INCO completed geological mapping, HLEM surveys and six diamond drill holes. One hole tested the McKellar Bay Mines Pb-Zn-Ag occurrence immediately east of the Alvey claim. A total of 941.2m were completed with all the anomalies explained by graphitic argillite or sulphide facies iron formation.
1988: Noranda flew a regional EM and Mag. No record of follow-up work.
1988: M.W. Carter, OGS, completed mapping of the Schreiber-Terrace Bay area; Open File Report 5682.
1990: GSC completed a Radiometric airborne in the Marathon-Hemlo area.
1996: A high density lake sediment and water geochemistry survey by the Ontario Geological Survey completed in the Schreiber-Terrace Bay area.
1998-2000: Major General Resources completed mapping, litho-geochemcial sampling, prospecting and magnetometer surveys.
2002: OGS completed a regional airborne magnetic survey.
2005-2008: Phoenix Matachewan Mines completed an airborne EM and Mag survey using Geotech Ltd. VTEM technology. This survey outlined 910 EM anomalies. 131 anomalies were ranked # 1, 350 were ranked # 2 and 429 were ranked # 3. A number of these anomalies are within the claim boundary. Phoenix completed 42 diamond drill holes for a total of 5169.05 metres, but none of the holes tested the Alvey VTEM anomalies.
2016: Seamus Magnus, OGS, completed 1:20,000 geological mapping of the volcanic and sedimentary rocks in the area.

Regional Geology

The claim lies within the Schreiber-Hemlo greenstone belt and represents a portion of the Abitibi-Wawa Subprovince of the Superior Province. This is a belt of east-west trending metavolcanic-metasedimentary sequences, which have been intruded by granite-syenitic plutons and metagabbroic dykes and sills. The belt hosts the Hemlo gold deposits 100 kilometres to the east, and the Winston Lake past producing Zinc mine 50 kilometers to the west.

The metavolcanic rocks within the Schreiber-Hemlo belt vary from calc-alkalic pyroclastic breccias, tuffs, flows, schists and gneisses to mafic, iron-rich tholeiites, which include pillowed and massive flows, tuffs, schists and gneisses. The metasedimentary rocks consist of graded turbidite, greywacke, mudstone, schist, paragneiss, minor conglomerate and iron formation. Sulphide-facies iron formation and ferruginous chert form a distinctive unit of exhalite that passes through the center of the claim. The volcanic and sedimentary rocks have been metamorphosed under upper greenschist facies to lower

amphibolite facies within the claim area. The rocks have undergone up to four periods of deformation, with evidence of multiple folding and faulting (Magnus, 2016).

Local Geology

Previous workers (Walker, 1934; Magnus, 2016) have defined the geology as consisting of an older felsic and mafic unit occupying the core of a regional anticline that is overlain by a distinctive unit of layered chert, sulphide facies iron formation, local magnetite-rich layers and garnetiferous mudstone that is interpreted as exhalite. The exhalite unit is overlain by weakly- to well-layered mafic volcaniclastic rocks that are in part tuffaceous adjacent to the exhalite unit and well layered intermediate to mafic greywacke a hundred metres or less from the exhalite unit.

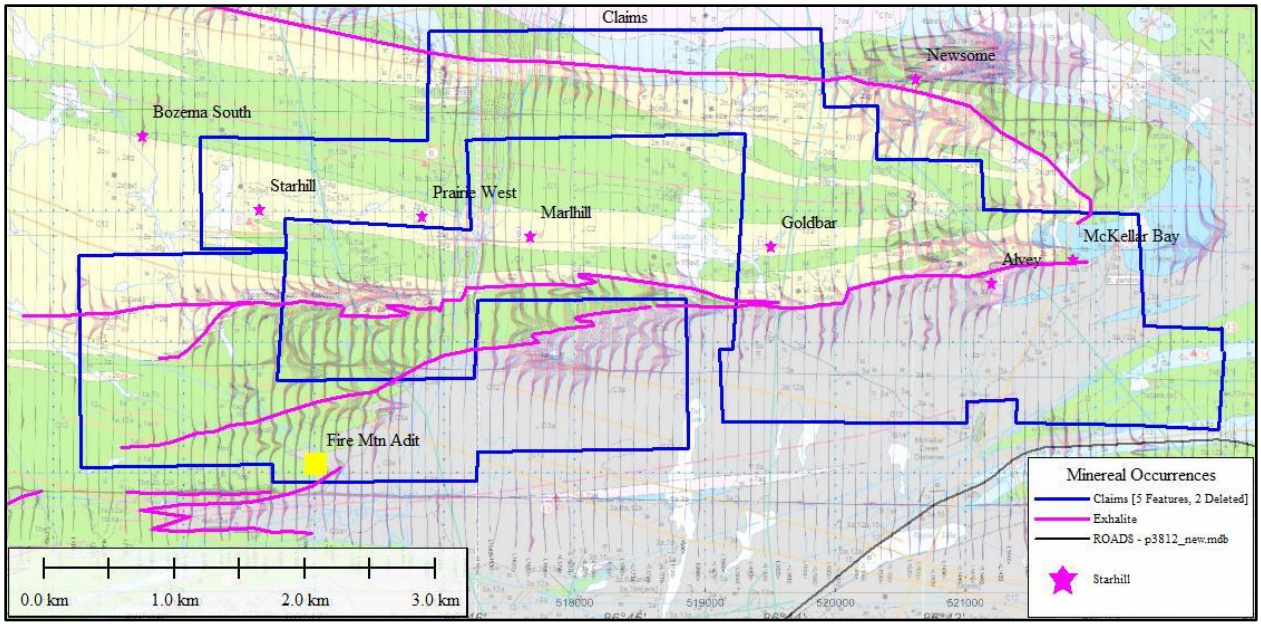

Figure 2: Location of the Alvey mineral occurrence within the McKellar claim block. Exhalite unit is indicated in purple. Geology base from Magnus (2016). Beige-felsic volcanic rocks; Green-mafic volcanic rocks; Grey-sedimentary rocks.

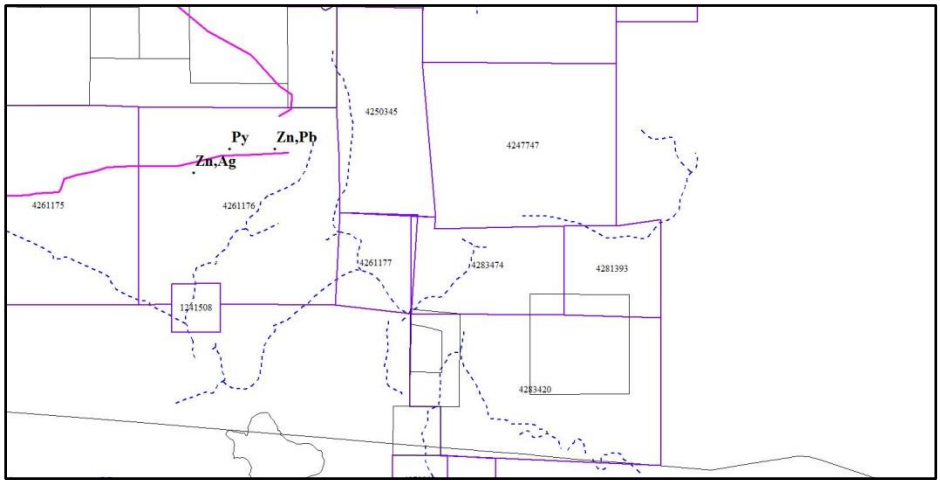

Figure 3: Location of the Alvey occurrence (Zn, Ag) within Claim 4261176.

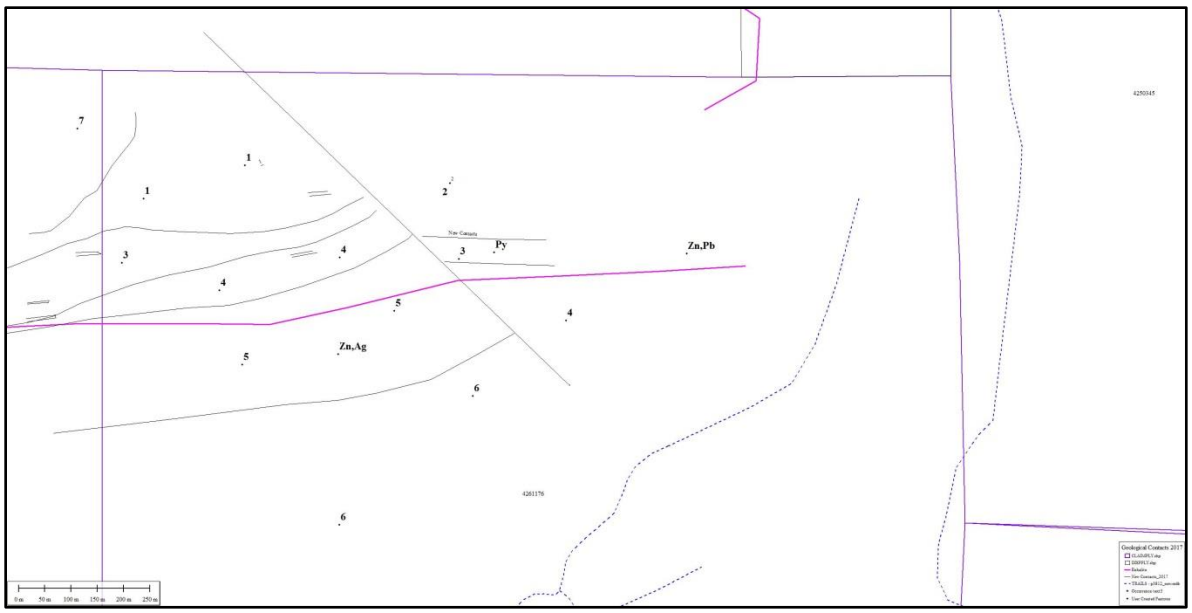

Figure 4: Geological contacts in the vicinity of the Alvey occurrence from 2017 field work. Rock units described in text.

Unit 1 - Felsic volcanic rocks:
Felsic volcanic rocks are the dominant rock types that stratigraphically underlie the unit of chemical sedimentary rocks. These are intercalated with and/or are overlain by submarine mafic volcanic rocks within the Prairie River anticline throughout the area (Walker, 1934; Magnus, 2016). Within the claim area (Fig. 4) the felsic rocks are fine grained, dacitic to rhyolitic breccia and tuff that may include subaqueous flows. No evidence of massive flow lobes or flow units could be distinguished; however, there is abundant evidence of poorly stratified tuffaceous felsic rocks.

Approximately 50-100 m north of the chemical sedimentary unit, the felsic rocks contain abundant lenses and domains of chloritic material that appear to be altered felsic material. These chloritic domains visually appear to be deformed cross-cutting chlorite 'veins' related to subaqueous hydrothermal alteration, which is confirmed by whole rock analyses provided by previous workers because several analyses exhibit marked depletion in Sodium and enrichments in Fe and Mg (Assessment file 42D15SE8278).

Unit 2 - Basalt
Fine grained massive, pillowed and volcaniclastic mafic rocks are well exposed at location 45 (521410E/5408700) on the hill north of the east end of the pond near the Alvey. These include dark green epidotized pillow basalt with some epidotized centers; top determinations on the pillows are to the south. Locally, within the pillow basalt there are rusty weathered inter-pillow areas with minor pyrite. These visually resemble alteration veins, which suggest that they are peripheral to the more intensive alteration observed in the rhyolite at site 122.

Unit 3 - Chemical sedimentary rocks

A unit of chemical sedimentary rocks overlies mafic and felsic volcanic rocks throughout most of the Prairie River anticline (Fig. 2). It is an approximate marker unit that separates altered and mineralized volcanic rocks from the dominantly overlying greywacke (Franklin et al, 2007; Magnus, 2016). The unit is of variable thickness and only partly exposed within the map area. DDH BH70-105 intersected approximately 130 m of chert, mudstone, disseminated to near solid sulphide (pyrite and/or pyrrhotite) (sulphide facies iron formation) and minor graphitic siltstones (Assessment file 42D15NE0043).

The composition of the unit varies along strike. Locally, it contains concentrations of magnetite, manganese (several percent MnO) and minor amounts of zinc and copper (less than 1%). These rocks are collectively referred to as the 'exhalite unit' even though some of the layers are obviously clastic in origin.

One of the objectives of the 2017 program was to sample the exhalite unit for pathfinder elements. Consequently considerable effort was devoted to stripping moss from shallow exposures in order to trace the exhalite unit along strike. This was partially successful, but a continuous sub-unit could not be traced beyond the immediate outcrop(s). Although a number of the silty silica-rich layers exposed can be considered to be chert, within the area mapped only one layer of massive (non-schistose) pyritiferous sedimentary rock with approximately 20% pyrite could be considered 'exhalite' (site 81). The intersections in DDH BH70-105 contain multiple layers of disseminated to massive sulphides and 'chert', suggesting that these rocks are 'exhalite' associated with a long lived hydrothermal system (42D15NE0043).

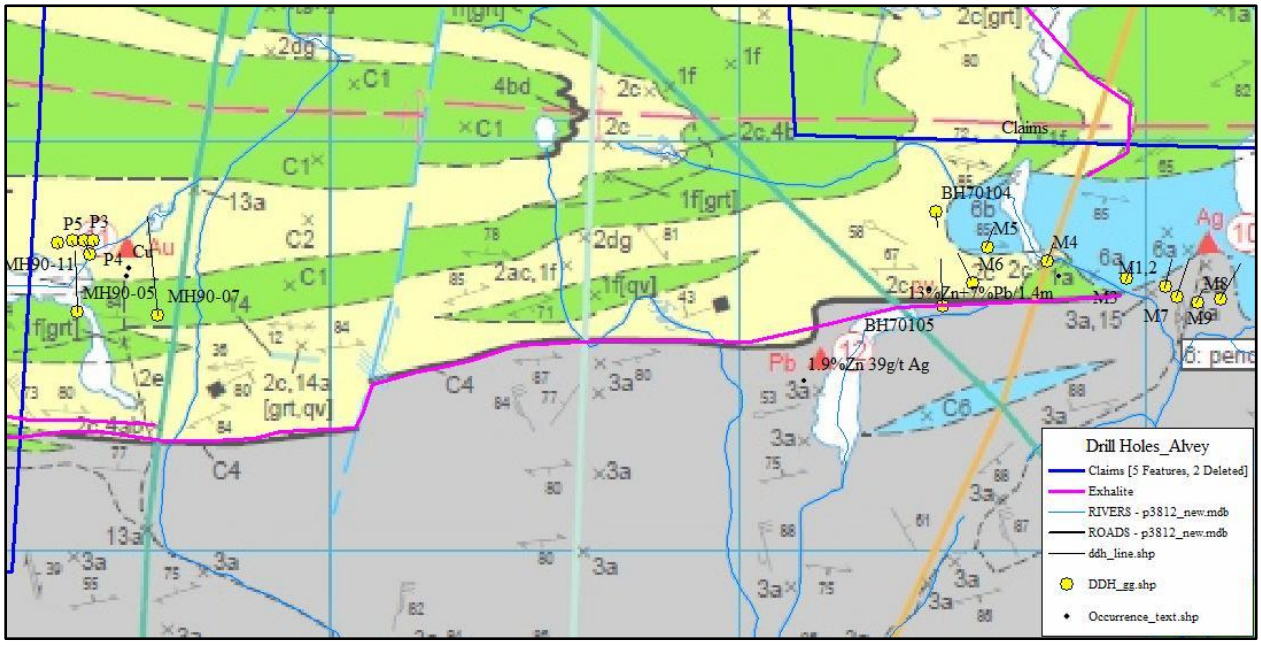

Figure 5: Location of the Alvey occurrence (1.9% Zn 39 g/t Ag) and drill holes. Underlying geological base map from Magnus (2016).

Unit 4 - Layered mafic tuff (?)
Mafic rocks that are weakly to well layered occur immediately south of the exhalite unit. A common characteristic of these rocks is the presence of abundant garnet in some layers and their overall mafic composition as opposed to the intermediate (quartz-bearing) composition of the greywacke. Individual beds could not be traced along strike. No evidence of cross-cutting hydrothermal alteration was noted in these rocks.

Unit 5 – Mafic tuff and Greywacke
The rocks in this unit are interlayered mafic tuff (?) of unit 4 and greywacke of unit 6.

Unit 6 - Greywacke
Well layered greywacke is present throughout most of the southern part of the claim area. This was not mapped in detail as examinations were focused on the trenches and rocks stratigraphically below the Alvey mineralization. Graded beds and recessive weathered layers together with minor S-folds confirm that stratigraphic tops are to the south and the anticline is upward facing (Walker, 1934; Magnus, 2016).

Unit 7 – Amphibolite
A distinctive unit of predominantly massive mafic rock are present in the northwest corner of the area mapped. This unit consists predominantly of coarse grained stubby amphibole that locally constitutes 99% of the rock. Locally, the unit includes domains of fine grained mafic material (chlorite and/or amphibole) with 1-3 mm reddish garnets that constitute up to 10 % of the rock by volume (site 72). Locally, it resembles 'gabbro', but there are no obvious feldspar present.

At several places exposures along the eastern margin of this unit contain massive quartz-rich material that resembles reasonably clean meta-chert, but distinctive bedding could not be determined (sites 100, 102). Consequently, it is not possible without further mapping to determine if this unit is a metamorphosed mafic intrusion (?) or metamorphosed intensely altered (metasomatised) chloritic material related to a zone of alteration. Its texture is definitely different from that of the subaqueous flows found in a similar stratigraphic position below the chemical sedimentary rocks to the east (site 45). The unit is definitely not meta-basalt (Walker, 1934; Magnus, 2016), however, its limits and composition need to be determined before its origin can be determined with any certainty.

Intrusive rocks
Small bodies of fine-grained holocrystalline mafic rock with a salt and pepper texture are present at several localities. These rock units are 1-3 m thick and form strong cliffs on the south side of the hills. The rocks are considered to be late cross-cutting dolerite.

Mineralization
The Alvey occurrence is situated along strike approximately 1 km west of the McKellar Bay Zn-Pb-Ag occurrence. It consists of a sheared sulphide facies iron formation (SIF) with up to 30% pyrite and a carbonate vein with sphalerite and galena. The sulphide zone is up to 15 m thick, in steeply dipping greywacke and extends for at least 100 m along strike. The carbonate-rich zone is reported to have

returned 14 g/t Ag and 28% Zn. Three DDH (total 83 m) were drilled in 1955 into the SIF (Assessment File 42D15NE0070 - no assays are available). In 1983 a litho-geochemical sampling returned assay results of up to 39 g/t Ag and 1.6% Zn (OGS Resident Geologist Report).

The trenches are reasonably well exposed and the main sulphide occurrence can be traced for approximately 100 m along strike. The sulphide contents vary from 10 to 50 % and appear to be highest where a late shear zone provided low pressure areas. This occurrence appears to be a zone of iron sulphide (+/- sphalerite and carbonate) mobilization along a late shear zone. The writer did not detect any evidence of layered sulphide or exhalite-related material in the host rocks surrounding the trenches.

The VTEM survey contracted by PMM revealed multiple strong conductors in the area west and north of the trenches. It is noted that the multiple strong VTEM anomalies found in the vicinity of the Alvey occurrence are in contrast to the weak EM anomalies found during earlier geophysical surveys, which is attributed to the deeper penetration of the VTEM system.

Geochemistry

An objective of the 2017 program was to determine if there were metal anomalies in the soils overlying the VTEM anomalies identified by PMM in 2007 prior to undertaking a trenching and/or drilling program. Soil samples were collected at 25 m intervals along cut lines in the vicinity of the VTEM anomalies (Fig. 6). Samples were collected with a spade by excavation of a hole some 30 to 40 cm in depth below the forest litter. In most cases the forest litter and organic layer was only 1-2 cm thick. The sample was collected with a steel knife from the 15 to 30 cm interval below the surface after removal of the forest litter and soil to a depth of 15 cm below the surface. Particles greater than 0.5 cm were removed with the knife at site. Organics were removed at site and during documentation of samples prior to shipping. Samples were stored in Ziploc bags and kept in covered coolers during the period of sampling and during transport. The samples were shipped by air to Actlabs in Ancaster in an insulated container where they were analyzed by the Enzyme Leach analytical method.

Results for 64 soil samples are presented in the attached analytical report **A17-09052Final**. Figure 6 illustrates the metal concentrations in soils over the VTEM anomalies at the Alvey mineral occurrence. In the vicinity of the trenches, on the narrow shear zone mineralization, there are enhanced Zn contents, but **no** distinct Zinc anomalies. Anomalous Zn contents (> 300 ppb) west of the known occurrence coincide with an area of disseminated mineralization and a major VTEM anomaly, but occur in an area of flat topography around a creek, which may account for the enhanced Zn contents in that area. High zinc (>200 ppb) also coincide with VTEM anomalies north of the exhalite unit.

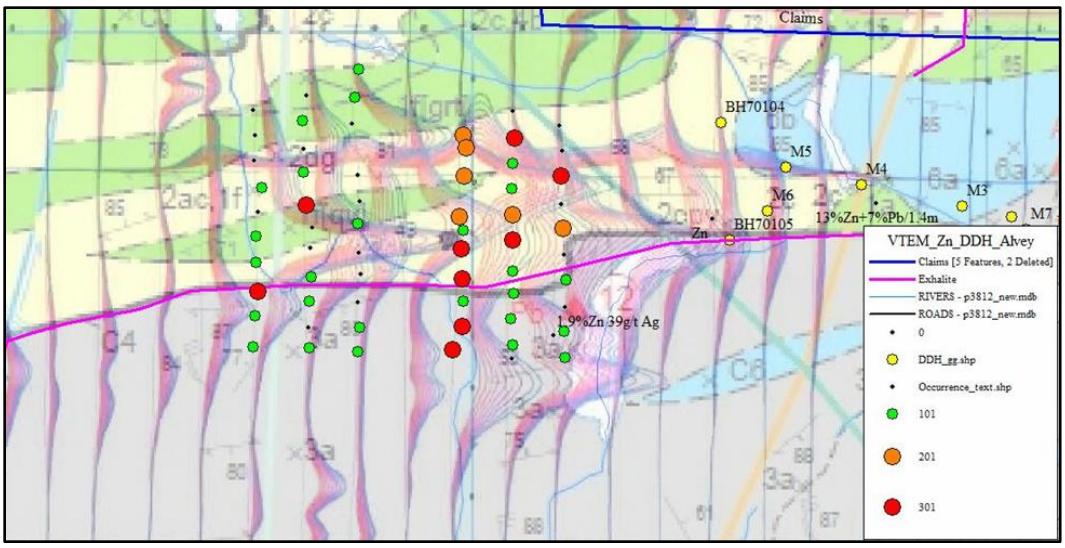

Figure 6: Location of VTEM anomalies, drill holes (M6, BH70105) and Enzyme Leach Zn contents (ppb) at the Alvey occurrence.

It is apparent from Figure 6 that the soil sampling did not extend far enough south of the trenches to provide a background signature because most of the samples contain over 100 ppb Zn. In addition the sampling did not adequately cover the large VTEM anomaly south of the known occurrences.

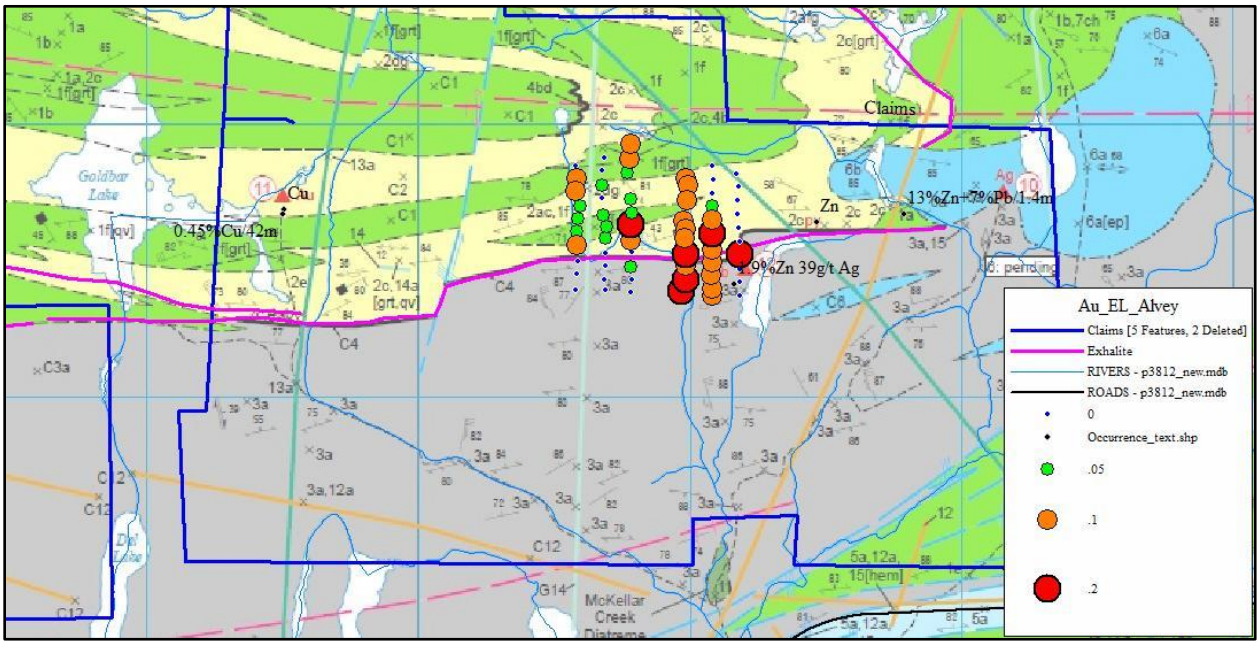

Figure 7: Enzyme Leach gold contents in soils in the vicinity of the Alvey occurrence.

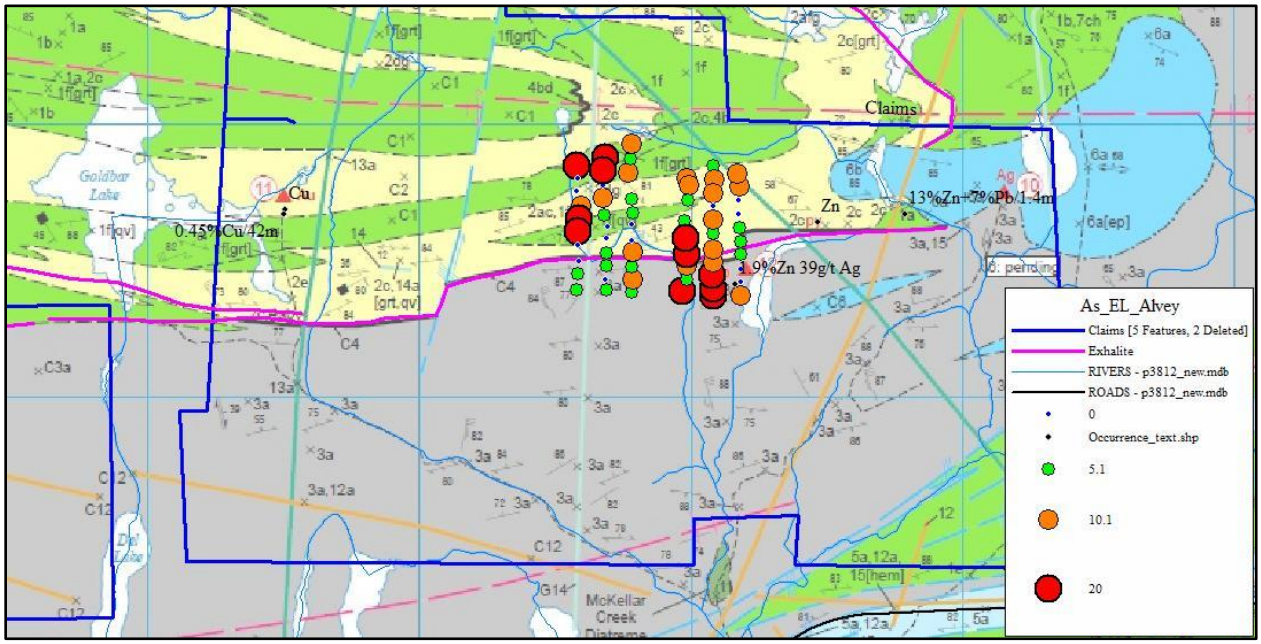

Figure 8: Enzyme Leach Arsenic contents (ppb) in soils at the Alvey occurrence.

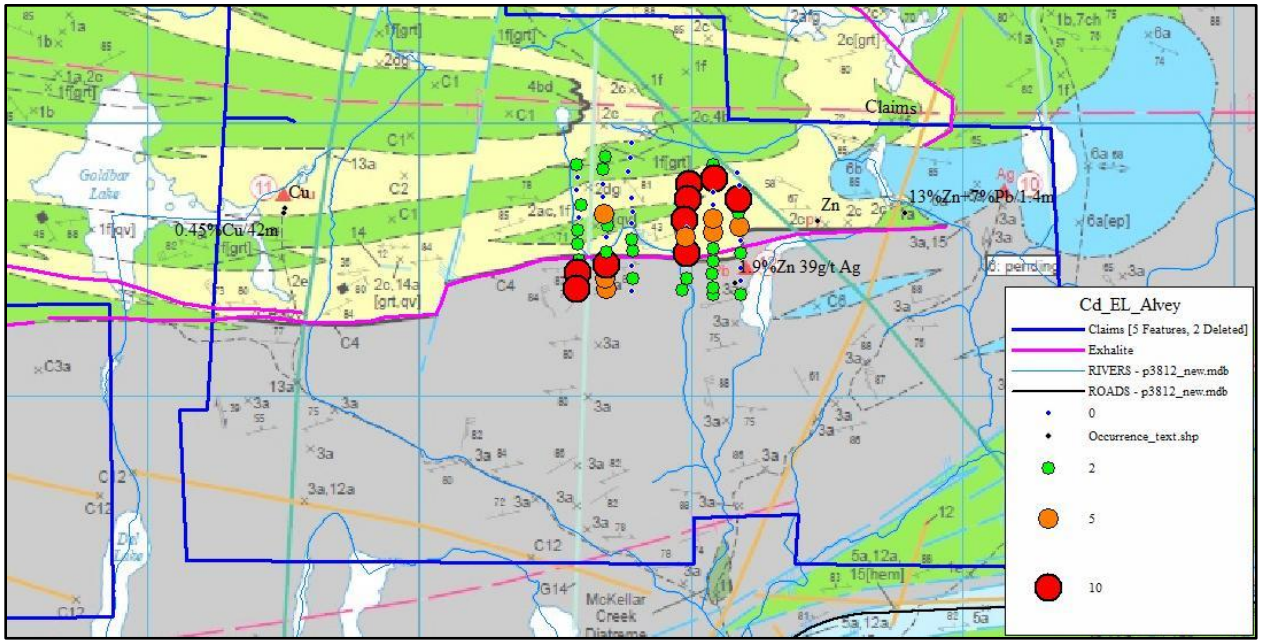

Figure 9: Enzyme Leach Cadmium (ppb) contents in soils at the Alvey occurrence.

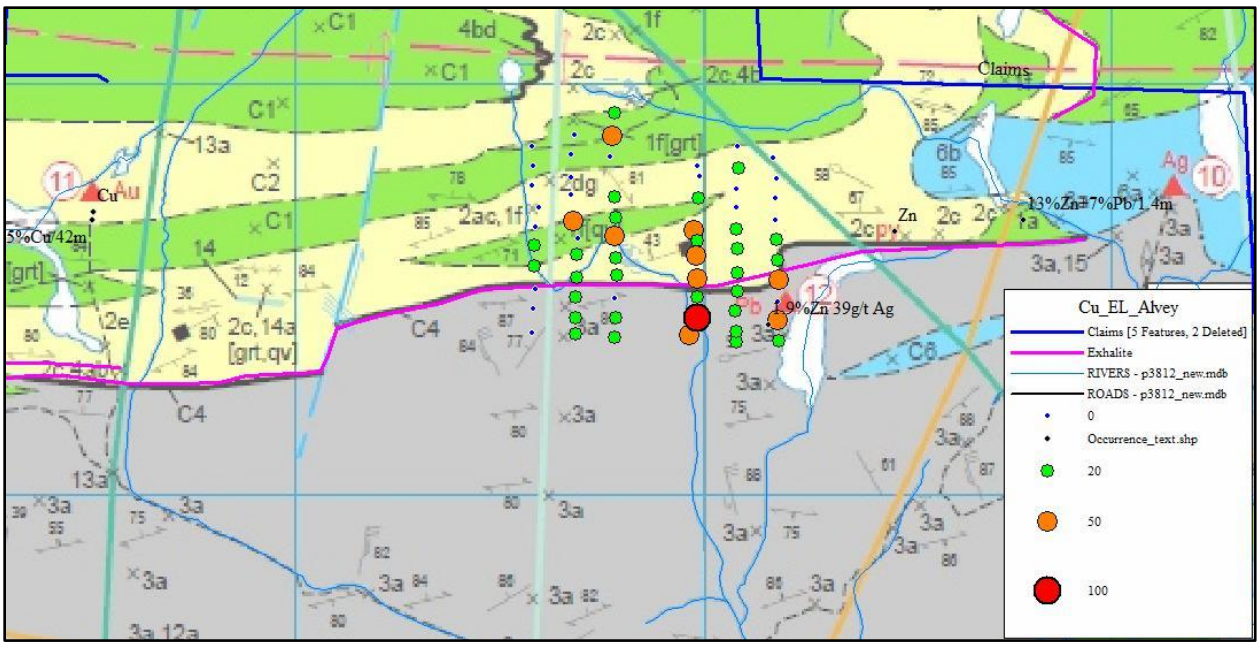

Figure 10: Enzyme Leach Cu (ppb) contents in soils at the Alvey occurrence.

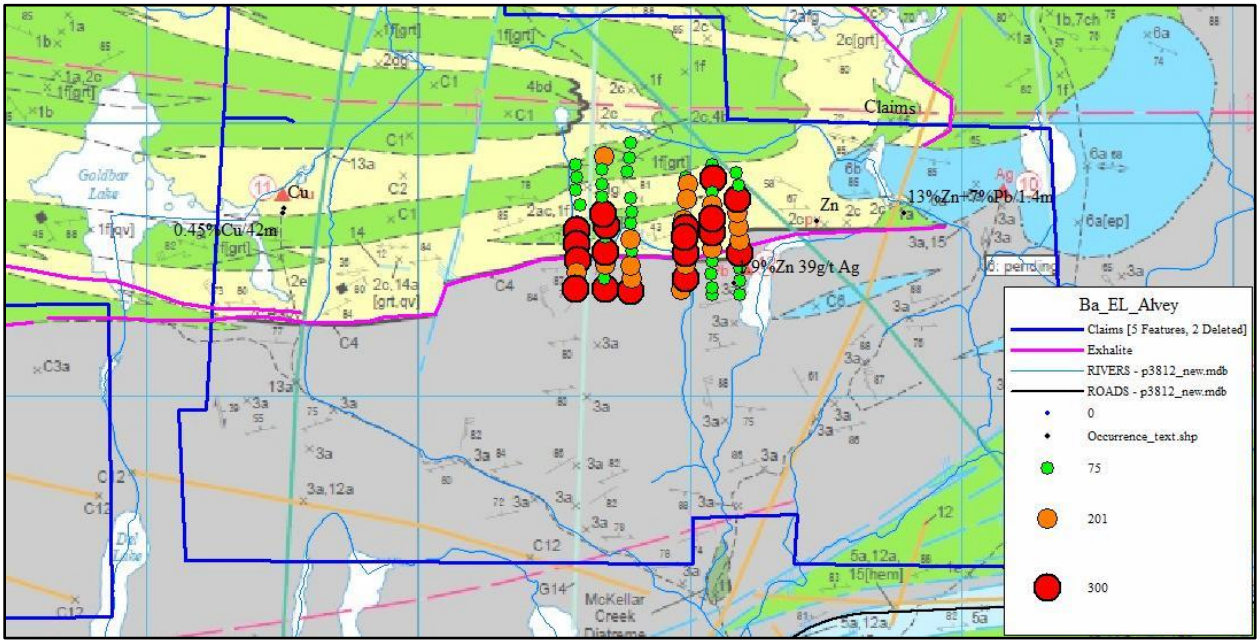

Figure 11: Enzyme Leach Barium contents at the Alvey occurrence.

Rock geochemistry

Six samples of mineralized rock were subjected to analyses by Activation labs Ultratrace 1 analytical method to determine in any pathfinder elements were present. The analyses, presented in the attached report (**A17-13784Final**), did not reveal any definitive pathfinder elements. The crushed samples may be analysed for other elements at a later date.

Conclusions

Geological mapping in the vicinity of the Alvey occurrences determined that the rock units, especially the target exhalite unit, is displaced from that indicated on earlier maps. Further geological mapping is recommended to establish the nature of the coarse grained amphibolite unit and to trace the exhalite unit westwards and eastwards. Only small exposures of the exhalite unit were found north of the Alvey occurrence and where exposed it is much thinner than that encountered in DDH BH70105.

Multiple sample Zn, Au and Ba Enzyme Leach anomalies are associated with VTEM anomalies both north and south of the exhalite unit. Together with the associated footwall intensive alteration, this suggests that the area has the potential to contain a VMS type mineral deposit.

It is recommended that a program of Induced Polarization be undertaken followed by a drill program.

George H Gale, PhD, PEng, CPG
450 Bonner Ave
Winnipeg, MB
R2G 1C3
June 25, 2018

Tables

Table I: Geological stations and rock descriptions - see attached Excel file.

Table II: Sample descriptions, crushed samples - see attached Word file.

Table III: Enzyme Leach analyses for soil samples - see attached Excel File A17-09052Final.

Table IV: Location of soil samples - see attached Excel file.

Table V: Ultratrace 1 analyses from Activation Labs for rock samples - see attached Excel file A17-13784Final. Sample locations provided in Table 1.

References

Assessment file 42D15SE8278: Noranda Exploration Company Limited, 1989

Assessment file 42D15NE0043: Inco, 1981

CERTIFICATE OF QUALIFICATIONS

George H. Gale, PEng
450 Bonner Ave
Winnipeg, MB R2G 1C3
Telephone (204) 669-1166
Email: georgegalevp@yahoo.ca

I, George H. Gale, PEng, do hereby certify that:

1. I am a consulting geologist working as a sole proprietor from Winnipeg, Manitoba.
2. I am the holder of a Prospector`s License in the Provinces of Ontario (409927) and Manitoba (4559).
3. I graduated with the degrees BSc (1966) and MSc (1970) from Memorial University and PhD from Durham University in 1971 in Geology.
4. I have authored the Technical Report titled "Geological and Geochemical investigations of the McKellar Property (2017)" dated June 25, 2018.
5. I am a registered Professional Geoscientist with the Association of Professional Engineers and Geoscientists of Manitoba, a member of Manitoba Prospectors Association and a Fellow of the Society of Economic Geologists.
6. I have worked as a Geologist for 45 years since my graduation and in a management position with junior exploration companies for the past 18 years.
7. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements as a Qualified Person for the purposes of NI 43-101.
8. I conducted the geological mapping and supervised the sample collection for the 2017 exploration program on Claim 4261176 (the "McKellar Property").
9. I am responsible for the preparation of the entire Technical Report.
10. I have a 40% interest in Claim 4261176.
11. As of the date of this certificate, and to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 25th Day of June, 2018.

SIGNED and SEALED
"George H. Gale"

_____

George H. Gale, PhD, Peng, CPG

Name	Lat	Long	Elevation	Sample	Photos	Rock Type	Note
10	48.814583	-86.714013	205.268				Start of trail
11	48.827019	-86.711143	256.863			Gwke	sandstones beds, 10-50 cm; with semipelite tops; recessive weathering shows tops to south
12	48.826948	-86.7105	258.428			Gwke	sandstone;20 - 40 cm with 5 cm semipelitic layers.
13	48.826735	-86.711901	266.583				Trail near old cmp
14	48.827931	-86.712373	282.649			RWZ	Rusty weathered zone, minor sulphides, pyrite < 2%; 60 cm thick. Undulating Sx; early shear?
15	48.828025	-86.712213	282.785	S015		RWZ	Schistose rusty wearhered zone, near vertical; along strike of old trenches; Trace pyrite; 1x10 m O/C
16	48.828046	-86.71173	274.054			RWZ	Trench, 2x2 m in 3x1 m O/C.Rusty weathered schistose rock with pyrite lenses on shear surfaces. Zone 1 m thick
17	48.828524	-86.711826	278.498			Gwke	Slightly rust weatherd with trace pyrite 1x10 m o/c
18	48.829327	-86.712533	290.379			Mvs	Mafic' volcanogenic sediment; weak Sx; 'dry' i.e not altered.
19	48.830014	-86.712739	306.806	S019ABC		Mvs	Mafic' rock, massive basalt or tuff; vertical; small o/c with quartz vein rubble.5-10 % pyrite (wet?). Samle E818033 (152529)
19A	48.830014	-86.712739				Amph	19 + 2m north; course grained with 'qtz' ellipsoides garnet or cordierite??) 60% hornblende; bdded; 19A f.g. Mafic; 19Bc.g. Mafic rock; interbedded with gradational contacts
19C	48.830014	-86.712739				IF	19 +20 m east of line, hornblende -rick rusty weatheed rock. (Location of site Zn5 ??)
20	48.830385	-86.712647	325.077	S020		Dio	Diorite, mssive, 5x50 m o/c.
22	48.830613	-86.712765	336.41	S022		Rhy	schistose felsic, granular; wiyh chlorite and biotite, trace pyrite
23	48.830673	-86.712798	337.439	S023A	24	Rhy	felsic rock, 1 m o/c; folded Garnet-chlorite 'veins' up to 1 cm.
24	48.830741	-86.712805	336.117	S024		CH	1 m o/c; silicic rock with quartz lenses that are garnet rich;chloritic and Sericite rich;
25	48.830732	-86.712802	335.059		25	CH	M-folded silicic rock (felsic vol ?) cut by 30 cm boudinaged gabbro. Garnet-rich, chlorite and sericite rich lense throughout felic part. Part of o/c looks like chert, 1m thick;
26	48.83107	-86.712872	338.313	S026		GBS	Garnet-biotit-schist. Garnet aggregates in chlortic nd amphibolitic rock (IF?) Probably 'exhalite layer'
27	48.831149	-86.712464	337.263	S027ABC		Rhy	? Altered silicic rock with lenses of garnet and chlorite 027, 027A, 027B, 027C.
28	48.828273	-86.711563	273.806			RWZ	Trench, 2 m. Schistose and massive ; IF ?.
29	48.830717	-86.712605	334.514			CH	grey, 1m thick;banded in part;
30	48.830799	-86.712426	336.846	S030		CH	Zone of silica-rich rock and mafic layers; lenses ca. 1x10 cm; resembles slump features with S-shapes, if so then basin to the west.
31	48.830861	-86.712245	338.841	S031AB	31	IF?	Garnet-hornblende rock, 3 m thick;with some cherty setions, layered. In contact with altered rhyolite on north side. + 2 m north-Rhyolite with 20% sericitic schist, brown weathered, slightly rusty, aphanitic material may be chert
31A	48.830861	-86.712245				Rhy	with Cherty layers. Folded quartz vein plunges 80o west
31B	48.830861	-86.712245				CH	with phyllitic lenses (mudstone?) part of IF?
32	48.83102	-86.712285	344.498	S032	32	Felsic	? Felsic rock with anastamosing 'vein' of rusty weathered material...possible footwall veins
33	48.831034	-86.712078	348.535	S033A		CH	Cherty rocks on south end and more felsic rock on north side. One pumice -like block; contains layer of garnet-rich rock; not well bedded , but has lenses of mafic mterial in felsic rock. Sx layering 070/70S.
33A	48.831034	-86.712078				RWZ	20 cm layer with 3 cm recessive zone on south side ...dirty chert layer
34	48.831121	-86.711809	355.187	S034		GML	Garnet rich mafic layer
35	48.831189	-86.711962	352.637			Rhy	Massive with altered lenses of 'chloritic' rock
36	48.830316	-86.707491	308.803	S036		CH	1 m block of rusty weathered pyritic silicic material at base of cliff...not located in O/C
37	48.830315	-86.707492	308.772	S037	37	IF	Rusty weathered silicic rock at mid-point of cliff; source of blocks at base; lenses of pyrite nd disseminated pyrite in 3 m high exposure about 20 m long. Drilled in 1970.
37A	48.830315	-86.707492				IF	location of sample E818071 10 m east of 37
38	48.830487	-86.707361	317.088			RWZ	Rusty weathered silicic rocks; at top of hill, rusty weathereing a streaks and disseminations. Line 12
39	48.83061	-86.70733	320.415	S039		CH	Cherty' lyers in a rusty weathered silicic rock
40	48.830619	-86.707388	323.261	S040		GML	Northern most part of o/c is a garnet rich mafic unit with up to 0% garnet; some bands of broken up mafic rock in subangular fragments with minor garnet. O/c ends in small ravine.
41	48.830706	-86.707492	326.087			CH	Cherty layer at south side of small o/c with rusty weathered streaks
42	48.831165	-86.707743	324.272			Dio	Diorite, fine grained, massive.
43	48.831006	-86.708171	324.202		43	Bas	Basalt, pillow lava. Msv mafic with dark green-black rims and amygdaloidal centers

Name	Lat	Long	Elevation	Sample	Photos	Rock Type	Note
44	48.830932	-86.708239	321.841		44	Bas	Basalt, pillow lava, fine grain, epidotized centers, rusty weathered streaks.
45	48.83103	-86.709227	335.163	S045	45	Bas	Basalt, pillow lava, some rusty weathered centers, tops to south, probably weakly altered.
46	48.830987	-86.710082	341.964			Amp	Altered 'mafic' rock with black hornblendite layer (or vein). Rusty weathered streaks throughout. Sx 235/80N.
47	48.831043	-86.710268	344.164			CH	Cherty rock, rusty weathered; sericite rich, 1x2 m o/c
48	48.831084	-86.710476	343.677			Bas	Basalt, altered?; 50 cm o/c.
49	48.831112	-86.71073	343.254	S049		Rhy	Rhyolite, with garnet and biotite, trace pyrite
50	48.831027	-86.711074	348.951			CH	Chert, folded. Rusty weathered on nE corner . 70 cm white chert in center of o/c. So 130/90.
51	48.831024	-86.711422	354.02			line 09	cut line 09East
52	48.831124	-86.711463	355.619			CH	Chert, small oc on line.
53	48.831486	-86.711529	356.38			Rhy	Rhyolite 1m o/c
54	48.831636	-86.711537	356.841			Bas	Basalt ?, altered? Withe garnet
55	48.831808	-86.711557	353.199	S055		Rhy	Rhyolite, massive. With garnet rich greenish lenses, altered?
56	48.831461	-86.712189	348.383			Dio	Diorite, fine grained , massive
57	48.83124	-86.712395	354.66	S057		Rhy	Rhyolite, with garnet-hornblende patches on NE end of 1x5 m o/c
58	48.828033	-86.713207	290.983	S058		GML	Mafic to intermediate 'layered' rock with lense of garnet hornblend rich rock; mafic fragmental? With alteration? Layer of black garnet hornblende rock on south side; So 230-250/80S
59	48.827948	-86.71398	287.765			GML	Garnet amphibolerock, black; in part foliated mafic rock with 2 cm felsic layerner vertical dip on Sx. Not greywacke, probably a sheared polymictic volcanoclastic
60	48.828141	-86.715361	297.705			Gwke	Layered greywake. Large 10 x50 m o/c along baseline
61	48.828027	-86.716661	301.392			Gwke	Greywake, contains a 10cm felsic dike
62	48.828009	-86.717276	304.597		62	MT	Mafic tuff? Contains large lenses of black chloritiic material that may be 10 to 20 cm alteration veins? Also patches of dark green to black rock..no garnet seen.
63	48.828042	-86.71794	312.766	S063		MT	schistose intermediate rock, poorly layered greywake or mafic tuff in 1 m o/c. At 4E/25N a 2x 20m o/c of mafic tuff or greywake.
64	48.829222	-86.718018	320.428	S064		Gwke	Mafic tuff or greywake with weak foliation. Crenulation cleavage on fracture surface; So? 130/85. Probably greywake sandstones and siltstones with 1 m + beds. Sx 230/90. Small 10-15 cm zones may be alteration veins or load casts with So at 300/90. At top of cliff a grit base and siltstone top.
65	48.830052	-86.718166	329.695	S065		Rhy	Rhyolite, grey, dark weathered. Altered?
66	48.830299	-86.718195	342.407	S066		Rhy	Rhyolite, massive. Dark colour ed (amphibole?) Locally looks to be altered , but no obvious veins'.
67	48.830437	-86.718229	352.397			Dio	Diorite, center of hill; uphill there are blocks of chert, rusty weathered rock and coarse grained hornblende and garnet; o/c could be stripped .
68	48.831263	-86.718286	414.189	S068		Rhy	Altered rhyolite and blocks of rusty weathered rock near top of hill. Chert seen in blocks;3x2 m o/c with rusty weathered pyritic felsic rock containing lenses of radiating amphibole (anthyophyllite?)
69	48.831548	-86.718098	400.801			Amp	Amphibolite with garnet, massive; cross-cutting 20 cm rusty zone. The Gt-Hbe zone is > 10 m thick anf has several rusty zones cutting it.
70	48.83162	-86.717837	401.861			Amp	Coarse grained hornblendite with a few small rusty zones and a few quartz veins in a 10x30 m o/c.
71	48.831928	-86.717917	398.295			CH?	Qurtz vein that is 'cherty' looking
72	48.831993	-86.717962	398.523			Amp	Garnet hornblende rock, massive
73	48.831645	-86.718315	402.261			Amp	Garnet hornblende rock, massive
74	48.831616	-86.719208	373.964			Dio	Diorite, fine grained
75	48.831262	-86.719315	372.4			And	Andesite'/rhyolite, massive, greenish
76	48.831229	-86.719354	375.204	S076		Amp	Hornblende rich rock with M-folds on top part of o/c and Z-folds along face; tuff? Altered?
77	48.83088	-86.719214	373.249			Amp	Mafic rock with amphibole crystals/ aggregates; fine to medium grained-not the Gt-Hbe rock.
78	48.830434	-86.719212	365.085			MT	Mafic rock, schistose, andesitic?; Amphibole rich sections, very little rusty weathered; sheared?; locally abundant amphibole.
79	48.829926	-86.719531	350.175			GML	Garnet amphibole rock in 1 m o/c; rusty weathered, trce pyrite
80	48.829611	-86.71948	338.05			Dio	Diorite, fine grained massive

Name	Lat	Long	Elevation	Sample	Photos	Rock Type	Note
81	48.829332	-86.719509	332.03	S081		DSM	Massive 'mafic' rock with > 10% pyrite; Zone is > 1 m thick, exposed along 3 m of cliff--not traced out
82	48.828845	-86.719835	328.255			Gwke	Layered felsic to intermediate rocks
83	48.828421	-86.717019	311.444			Soil	soil sample # 36 adjacent to greywake/turbidite; 20 m S there is a large o/c along baseline tot he east for 75 m...sandstone and siltstones.
84	48.828587	-86.716885	313.52			Gwke	Sandstone and black siltstone with 2-3 cm quartz veins; So 330/90 Sx on dark layers at 085/90
86	48.829538	-86.716871	318.276		86	Bas	Basalt ? Massive; abundant hornblende clots--maybe as veins?; no garnets seen.
87	48.829538	-86.716871	317.943			Bas	Basalt, aphanitic, blowdown
88	48.829695	-86.716925	317.546	S088		Bas	Basalt, massive, aphanitic
89	48.830453	-86.71695	319.7			CH	Chert at base of hill, with grey and white quartz veins; 10 m up hill a loose block of Gt-manganese rock- about 80% Mnlocally. o/c 3x1x.5m
90	48.830695	-86.716713	327.366			Mn	Loose block of Manganese with garnet.
91	48.830696	-86.716713	327.346	S091		Dio	Diorite, fine grained masive; about 10 m up hill from Mn block.
92	48.830743	-86.716839	334.718	S092		CH	Silicic unit; lots of loose blocks of silica rich rock and rusty weathered 'IF' along slope Silicic hornblende unit; ribbon quartz (chert) and hornblende, rusty weathered in part; Probably layered chert and mafic 'chloritic' tuff; hornblende layers resemble the coarse grained rocks seen previously!
94	48.831048	-86.716776	356.969	S094		RWZ	Rusty weathered zone; gossan? Chip sample taken
95	48.831428	-86.716941	378.247			CH	Chert banded and 'mafic' layers 0.2 to 2 cm thick.
96	48.83149	-86.717023	380.276			CH	Chert and quartz vein mixed with felsic phyllites; M-folds plunge steeply east; little rusty weathered;mostly a fairly clean chert unit. Sample taken from north end of O/c.
97	48.831652	-86.71719	382.612	S097		Rhy	Rhyolite, with garnet and trae pyrite
98	48.832247	-86.717325	378.419			CH	Cherty rocks, extend for 20 m west
99	48.83236	-86.717249	375.901			Gab	Gabbro, medium grained
100	48.832423	-86.716924	368.353			CH	Chert unit eas of gabbro some rusty zones
101	48.832646	-86.717139	372.053	S101		Gab	Gabbro', massive, medium grained; hornblende content becomes quite variable at north end of o/c-patchy. +10 m north massive hornblendite, locally garnet, locally disseminated hornblendes 0.5 cm
102	48.832811	-86.716878	362.712			CH	Cherty' rock with quartz veins
103	48.831791	-86.716057	365.717	S103		Rhy	Rhyolite, rusty weathered
104	48.831339	-86.715429	355.269	S104		Rhy	Rhyolite, massive
105	48.831235	-86.715412	350.485	S105		Rhy	Rhyolite, massive
106	48.83106	-86.715392	344.071	S106		Rhy	Rhyolite, brown weathered @ 6E/3+50N
107	48.830857	-86.715395	334.514			Rhy?	Felsic rusty weathered
108	48.830613	-86.715435	326.648			Rhy?	Felsic, altered
109	48.82931	-86.715228	304.867			Gwke?	Felsic sandstone and siltstone ?
110	48.827892	-86.713249	276.61	S110		Gwke	Layered mafic tuff part of o/c with amphibolite layers/lenses that may be altered; chloritic in part, several small rusty weathered zones. Sample E818066
111	48.82811	-86.714356	281.725			soil	soil sample # 36 adjacent to greywake/turbidite; 20 m S there is a large o/c along baseline tot he east for 75 m...sandstone and siltstones.
111A	48.82811	-86.714356				And?	25 m north of 111; mafic rock, partly rusty weathered; schistose with parts massive and with epidote lenses; Poorly layered?; lots of black amphibole as bands and streaks in less mafic parts.
112	48.828507	-86.714113	286.119			soil	soil sample in valley, material is black oxidized 'silt' .
113	48.828657	-86.714117	288.31			And	Andesite, schistose, pale green
115	48.828946	-86.714088	288.786	S115			Andesite schistose; "fish scale" alteration fairly uniform over a 3-5 m ; locally massive up hill.
116	48.829127	-86.714102	296.513			Bas	Basalt/andesit, massive
118	48.829862	-86.714121	305.514	S118		Bas	Basalt/andesite, massive, weak foliation; Severalplaces there appears to be up to 20 cm 'black'/ darker sections cutting across the unit; probably a massive basalt flow with out layering
119	48.830574	-86.714055	319.653	S119		Gwke	Greywake or andesitic tuff unit; schistose intermediate rock approximtely 30 m south of 120
120	48.830573	-86.714058	319.938			CH	Cherty unit > 1 m thick, laminated, at base of cliff; blocks?

Name	Lat	Long	Elevation	Sample	Photos	Rock Type	Note
121	48.830626	-86.714085	324.99			Amp	Garnet amphibole rock
122	48.831182	-86.713995	330.238	S122	122	Rhy	Felsic rock with abundant streaks and lensesof garnet hornblende +/- chlorite; typical metamorphosed chlorite altered felsic rocks.
15258	48.82912	-86.712463	253.944			3 m block	no evidence of sulphides. Black to Dark green; with quartz lenses up to 10 cm wide
BASE LINE 2	48.827993	-86.711448	270.86				
BASELINE	48.829879	-86.707978	262.46				
L04E	48.828058	-86.718145	319.521				Line 04E
L05E	48.828041	-86.71687	302.434				Line 05E
L15E000N	48.827926	-86.703422	278.44				Line 15E/00N
L15E100S	48.827042	-86.703364	253.054				Line 15E/100S
L09E	48.829576	-86.711259	283.253				line 09E
TRAIL2	48.818348	-86.712652	252.76				Start of Goldbar trail
TRENCH LARGE	48.828058	-86.712102	244.03				Trench
TRENCH SMALL	48.827323	-86.713277	284.232				Trench

Table 2: Sample Descriptions

015 Rusty weathered felsic rock with 5% pyrite and sericite n shear zone.

019 Rusty weathered intermediate to mafic rock; with 2-3 mm garnets

019A Intermediate to mafic rock with 2-3 mm garnets

019B Rusty weathered intermediate to mafic rock; dark grey to black, with garnets

020 Dolerite; fine grained (0.5-1 mm), massive, holocrystalline.

022 Schistose intermediate sedimentary rock; with biotite and amphibole, 2x15 mm carbonate

022 sheared mafic rock; fine grained, biotite, hornblende, quartz, several quartz-carbonate lenses (0.5-2 cm).

023 Intermediate rock, aphanitic, sheared; with fine grained dark brown biotitic lenses with 2-3 mm garnets; probably mudstone.

023A Sheared intermediate to felsic rock; iron stained, lenses of felsic and intermediate rocks in shear zone.

024 Pale grey weathered rock with rusty chloritic sections. Possibly a chert-mudstone or and altered felsic tuff.

026 Dark grey fine grained intermediate rock with 20% 2-3 mm pale grey garnet (cordierite?) in a biotitic matrix.

027 Fine grained basalt, dark green, massive.

027A Fine grained foliated felsic rock; grey-white on weathered surface, dark grey on cut surface. Probably rhyolite tuff.

027B Fine grained dark black rock with up to 40% 2-3 mm pale garnet and biotite; probably a mudstone.

027C Grey foliated intermediate rock (tuff?).

030 Greywacke, intermediate; dark grey with small elongate carbonate lenses

031 Rusty weathered, sheared felsic (?) rock.

031B Rusty weathered, sheared felsic (?) rock.

032 Felsic rock with rusty weathered lenses; grey-white on weathered surface, dark grey on cut surface; probably rhyolite.

033A Rusty weathered, sheared felsic (?) rock with lenses of chlorite and amphibole.

034 Pale grey green garnetiferous rock with approximately 40% 2 mm garnet (exhalite ?)

039 Fine grained dark grey to black massive mafic rock; dolerite

040 Schistose felsic rock, rusty weathered, amphibole and biotite crystals

049 Pale grey weathered massive intermediate rock; with dark grey lenses of quartz and carbonate and pale red garnet. Does not appear to be altered.

055 Grey to dark grey massive intermediate to felsic rock, aphanitic.

055 ‘Sandstone’; fine grained massive, felsic to intermediate.

063 Greywake, intermediate; fine grained, foliated.

064 Fine grained grey siltstone/tuff

065 Grey intermediate to felsic rock with chlorite; foliated, contains elongated particles of a darker rock

066 Dolerite; fine-grained holocrystalline, massive, 1 mm green to black amphibole

068 Mafic schist with 15% 2-4 mm amphibole crystals; in a fine grained schistose matrix that resembles aphanitic mafic volcanic rocks, dark green to black chloritic areas on S-plane.

076 Sandstone; fine grained biotitic intermediate rock with carbonate lenses

078 Greywacke, intermediate; with small carbonate lenses.

081 Fine grained massive intermediate rock with15% 0.5 mm pyrite; exhalite (?)

087 Sheared mafic rock; medium black with small domains of carbonate

088 Fine grained grey sandstone; massive

091 Fine grained dark grey to black massive mafic rock; basalt or diorite

092 Intermediate rock; pale brown on weathered surface, greenish brown on cut surface, contains 5-10 % crystals and clots of amphibole porphyroblasts, appears to be an altered felsic or andesitic rock.

094 Rusty weathered, sheared felsic (?) rock.

097 Dark grey, massive intermediate rock with scattered 2 mm garnet

101 Amphibolite; medium to coarse grained amphibole with small domains (fragments?) of light coloured felsic (?) rock.

103 White weathered felsic rock; grey on cut surface, probably chert

105 Dark grey intermediate rock

Report Number: A17-09502
Report Date: 21/11/2017

Analyte Symbol	Al	Ca	Fe	K	Mg	Na	Cl	Br	I	V	As	Se	Mo	Sb	Te	W	Re	Au	Hg	Th	U	Co	Ni	Cu	Zn	Pb	Ga	Ge	Ag	Cd	In	Sn
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.5	5	1	5	2	5	1000	1	1	0.1	0.1	1	0.1	0.01	0.5	0.1	0.005	0.005	0.1	0.01	0.01	0.2	1	1	5	0.1	0.3	0.05	0.1	0.1	0.01	0.2
Analysis Method	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
S01	9.8	10	8	10	5	13	4000	98	18	170	18.4	4	2	1.95	< 0.5	3.6	0.016	< 0.005	< 0.1	1.11	0.78	9.8	66	30	138	49.1	4.3	0.25	< 0.1	2.4	< 0.01	0.7
S02	29	25	6	16	8	< 5	3000	670	76	1.7	2.9	5	1.5	0.49	< 0.5	< 0.1	0.075	< 0.005	< 0.1	0.39	1.29	30.5	191	85	181	9.8	< 0.3	0.09	< 0.1	1.3	< 0.01	< 0.2
S03	2.3	51	< 1	< 5	10	6	< 1000	68	10	11.9	2.3	2	2.1	0.59	< 0.5	0.3	0.018	< 0.005	< 0.1	0.2	0.6	17.9	27	16	42	13.9	< 0.3	0.14	< 0.1	0.6	< 0.01	< 0.2
S04	20.9	11	6	17	6	< 5	1000	477	49	25.8	7.6	4	1	1.28	< 0.5	< 0.1	0.083	0.458	0.4	1.45	2.43	25.1	95	54	128	10.1	1.8	0.22	< 0.1	3.8	0.02	0.2
S05	5.5	67	1	< 5	10	5	1000	143	27	20	5.1	4	2.2	0.83	< 0.5	< 0.1	0.03	0.015	0.1	0.65	1.62	5.7	39	30	70	3	0.7	0.09	< 0.1	1.9	< 0.01	0.8
S06	27.9	8	3	17	6	< 5	3000	293	64	2.5	5.1	7	< 0.1	0.79	< 0.5	< 0.1	0.067	0.008	< 0.1	0.63	1.34	37.5	66	23	228	6.4	0.4	< 0.05	< 0.1	7.7	< 0.01	< 0.2
S07	13.4	26	2	14	7	< 5	< 1000	227	45	3.3	3.9	4	< 0.1	1.03	< 0.5	< 0.1	0.016	0.033	< 0.1	0.59	0.98	9.6	21	16	78	7.8	0.3	< 0.05	< 0.1	4.3	< 0.01	< 0.2
S08	66.4	16	5	27	9	8	4000	619	144	2	4.6	22	0.9	1.37	< 0.5	< 0.1	0.051	0.021	< 0.1	0.94	2.04	6.7	40	15	394	6.5	0.7	< 0.05	< 0.1	16.4	< 0.01	< 0.2
S09	8.2	< 5	4	8	< 2	< 5	< 1000	91	19	26.5	15.3	4	1.1	1.06	< 0.5	0.2	0.034	< 0.005	< 0.1	0.86	0.94	1.6	6	8	61	7.8	3.3	0.09	< 0.1	1.9	< 0.01	0.3
S10	10.6	< 5	4	5	< 2	< 5	1000	67	14	63.5	13	3	0.8	0.37	< 0.5	< 0.1	0.036	< 0.005	< 0.1	0.62	1.05	3.5	75	11	58	5	3.2	0.06	< 0.1	1.7	< 0.01	< 0.2
S11	21.7	15	3	11	7	< 5	1000	593	53	8.1	6.4	7	0.1	1.45	< 0.5	< 0.1	0.046	< 0.005	< 0.1	0.66	1.66	5.9	48	14	79	4.3	0.6	0.05	< 0.1	3	< 0.01	< 0.2
S12	27	27	6	13	14	< 5	2000	573	48	11.3	15.2	9	0.3	1.16	< 0.5	< 0.1	0.044	0.014	< 0.1	0.52	1.25	27.5	87	25	326	6.8	1	0.07	< 0.1	14.6	< 0.01	< 0.2
S13	12.2	6	7	8	4	< 5	< 1000	176	30	51.9	18.8	6	0.8	0.43	< 0.5	< 0.1	0.053	< 0.005	< 0.1	0.92	1.88	4.4	36	15	148	5.4	3	< 0.05	< 0.1	1.6	< 0.01	< 0.2
S14	17.6	40	5	12	8	< 5	1000	309	36	3.4	4.6	8	0.3	1.23	< 0.5	< 0.1	0.055	0.054	< 0.1	0.44	1.41	9.2	22	6	120	2	0.3	< 0.05	< 0.1	1.9	< 0.01	< 0.2
S15	24.2	< 5	1	8	3	< 5	2000	826	78	3.9	5.2	8	< 0.1	0.81	< 0.5	< 0.1	0.046	< 0.005	< 0.1	0.67	1.82	7.8	25	28	136	9.1	< 0.3	0.05	< 0.1	7.8	< 0.01	< 0.2
S16	24.2	< 5	2	6	2	< 5	1000	326	45	11	4.4	3	< 0.1	0.43	< 0.5	< 0.1	0.042	< 0.005	< 0.1	0.68	1.44	8.4	16	20	91	5	0.5	0.05	< 0.1	9.4	< 0.01	< 0.2
S17	26.1	< 5	4	6	2	< 5	2000	758	84	2.9	6.7	6	< 0.1	1.1	< 0.5	< 0.1	0.039	< 0.005	< 0.1	1.19	1.4	6.9	25	20	114	8.2	0.3	< 0.05	< 0.1	13	< 0.01	< 0.2
S18	7.4	81	3	10	8	< 5	2000	127	21	36.7	5.5	2	0.9	0.71	< 0.5	< 0.1	0.107	0.035	< 0.1	0.66	0.99	5.9	48	20	170	3.4	1.2	0.13	< 0.1	2	< 0.01	< 0.2
S19	10.6	82	< 1	< 5	8	5	1000	506	42	14.4	2.6	14	2.2	1.04	< 0.5	< 0.1	0.087	0.083	0.2	0.38	1.11	4.5	30	34	24	4	< 0.3	0.07	< 0.1	1	< 0.01	< 0.2
S20	22.1	22	3	10	6	< 5	1000	286	35	4.7	3.7	10	0.2	2.04	< 0.5	< 0.1	0.04	0.07	< 0.1	0.42	0.95	22.4	61	17	31	4.5	< 0.3	< 0.05	< 0.1	2.9	< 0.01	< 0.2
S21	21.8	12	< 1	18	8	< 5	2000	592	61	1.6	5.1	16	0.2	0.83	< 0.5	< 0.1	0.133	0.088	< 0.1	0.51	5.16	226	108	54	772	8.6	0.7	< 0.05	< 0.1	6.7	< 0.01	< 0.2
S22	7.9	< 5	5	7	2	5	< 1000	112	25	69.5	14.8	6	1.3	1.57	< 0.5	0.2	0.046	< 0.005	< 0.1	0.77	1.26	8.7	11	10	195	8.1	3.2	0.07	< 0.1	1.4	< 0.01	0.2
S23	14	36	3	< 5	3	< 5	< 1000	97	10	11.3	4.2	3	0.6	1.14	< 0.5	< 0.1	0.139	0.066	< 0.1	0.46	1.32	5.9	14	8	79	1.9	0.7	< 0.05	< 0.1	0.9	< 0.01	< 0.2
S24	13.9	8	9	9	4	< 5	2000	431	39	35	22.1	12	0.5	0.69	< 0.5	< 0.1	0.043	< 0.005	< 0.1	0.87	1.28	4.7	68	15	108	6	2.6	< 0.05	< 0.1	2.7	< 0.01	< 0.2
S25	12.3	10	7	11	6	7	3000	286	30	99	22.7	8	0.8	0.7	< 0.5	0.2	0.056	0.032	< 0.1	0.85	0.86	10.2	102	12	59	6.5	4.5	0.09	< 0.1	4.7	< 0.01	0.3
S26	10.3	< 5	4	14	4	5	6000	188	32	96.7	37.7	10	2.5	1.35	< 0.5	0.2	0.102	< 0.005	< 0.1	1	1.09	6.7	25	18	98	7.6	2.1	< 0.05	< 0.1	3.5	< 0.01	0.3
S26A	13.7	8	10	9	4	< 5	3000	406	37	38.9	21.4	12	0.6	0.6	< 0.5	< 0.1	0.027	0.032	0.1	0.97	1.26	4.6	63	16	125	5	2.8	0.05	< 0.1	2.6	< 0.01	< 0.2
S27	6.3	19	2	5	4	< 5	< 1000	109	18	14.7	4.9	3	0.5	0.63	< 0.5	< 0.1	0.065	0.145	0.2	0.32	1.41	19.4	26	13	49	2.4	0.6	< 0.05	< 0.1	1.9	< 0.01	< 0.2
S28	5	26	1	< 5	4	< 5	< 1000	65	11	13.7	3.8	2	0.4	0.51	< 0.5	< 0.1	0.016	0.116	0.1	0.22	1.07	4.7	14	11	62	2.3	0.5	< 0.05	< 0.1	1.6	< 0.01	< 0.2
S29	10.7	< 5	6	8	2	6	2000	120	27	48.5	11.2	5	0.8	0.62	< 0.5	< 0.1	0.062	0.066	0.1	1	1.49	7.1	21	17	157	8.1	2.7	< 0.05	< 0.1	2.2	< 0.01	< 0.2
S30	5.2	< 5	3	14	< 2	6	2000	82	17	126	21.9	5	2.6	0.67	< 0.5	0.3	0.042	0.065	0.2	0.91	0.8	3.9	14	19	60	4.4	2.3	0.13	< 0.1	1.3	< 0.01	0.4
S31	20.7	9	8	15	5	6	5000	646	71	14.9	20	16	0.6	0.91	< 0.5	< 0.1	0.121	0.075	< 0.1	1.59	2.48	39.2	262	35	122	7	2.1	0.12	< 0.1	4.8	< 0.01	< 0.2
S32	33.5	< 5	1	12	4	< 5	3000	1340	112	4.3	4.1	8	< 0.1	0.2	< 0.5	< 0.1	0.082	0.147	< 0.1	1.14	3.25	28	35	39	102	6.3	0.4	0.07	< 0.1	3.2	< 0.01	< 0.2
S33	13.1	50	2	12	13	< 5	3000	357	22	12.1	4.4	12	0.6	1.17	< 0.5	< 0.1	0.047	0.024	< 0.1	0.35	1.01	40.8	34	13	402	5.3	0.9	0.07	< 0.1	2.9	< 0.01	< 0.2
S34	28	9	2	7	3	< 5	2000	513	46	5.2	5.9	9	< 0.1	0.61	< 0.5	< 0.1	0.07	0.014	< 0.1	0.73	1.13	10.6	27	14	101	8.6	< 0.3	0.07	< 0.1	12.3	< 0.01	< 0.2
S35	21.1	8	2	9	5	6	4000	667	50	4.1	7.5	14	0.1	1.83	< 0.5	< 0.1	0.065	< 0.005	< 0.1	0.59	0.96	26.1	65	13	107	14.1	< 0.3	0.07	< 0.1	10.7	< 0.01	< 0.2
S36	18.2	17	5	9	6	< 5	< 1000	215	28	19.8	6	4	0.6	0.75	< 0.5	< 0.1	0.092	0.048	< 0.1	1.07	2.22	18.4	80	31	134	4	1.1	0.09	< 0.1	1.9	< 0.01	< 0.2
S37	22.6	< 5	12	9	4	< 5	2000	276	44	39.3	11.6	5	0.6	0.83	< 0.5	< 0.1	0.075	0.039	< 0.1	1.16	1.94	12.7	48	32	166	3.9	1.9	0.07	< 0.1	2.3	< 0.01	< 0.2
S38	7.7	7	< 1	11	4	6	< 1000	52	6	38.9	8.4	2	1.2	0.6	< 0.5	0.1	0.095	0.073	< 0.1	0.79	0.99	6.3	21	9	89	4.8	1.5	0.08	< 0.1	1.6	< 0.01	< 0.2
S39	12.2	< 5	4	7	2	< 5	< 1000	62	13	32	11.3	2	0.9	0.32	< 0.5	< 0.1	0.027	0.006	< 0.1	0.92	1.34	8.5	88	21	93	3.9	2.6	0.14	< 0.1	2	< 0.01	< 0.2
S40	19.9	60	3	< 5	6	< 5	< 1000	410	13	72.6	4.9	5	0.5	2.25	< 0.5	< 0.1	0.042	0.122	< 0.1	2.53	4.12	8.5	29	39	62	4	0.9	0.14	< 0.1	2.4	< 0.01	< 0.2
S41	8.5	97	1	< 5	9	< 5	1000	683	96	1.4	4.7	26	1.5	1.23	< 0.5	< 0.1	0.103	0.308	< 0.1	0.89	2.09	34.4	59	55	119	2.3	< 0.3	< 0.05	< 0.1	0.9	< 0.01	< 0.2
S42	3	106	4	< 5	10	< 5	2000	211	33	2.4	7.9	5	1.1	1.03	< 0.5	< 0.1	0.063	0.084	0.1	0.5	0.8	17.3	31	35	30	4.8	0.4	0.11	< 0.1	0.9	< 0.01	< 0.2
S43	3	100	5	< 5	9	< 5	2000	204	31	2.1	7.8	4	1.1	1.02	< 0.5	< 0.1	0.055	0.09	< 0.1	0.46	0.76	16.4	28	34	35	7.7	0.3	< 0.05	< 0.1	1	< 0.01	< 0.2
S45	5.8	< 5	3	6	2	< 5	4000	105	23	29.8	13.7	6	1.4	0.74	< 0.5	< 0.1	0.024	0.078	0.1	0.91	1.05	5	16	7	78	9.9	1.2	< 0.05	< 0.1	1	< 0.01	0.2
S46	13.6	16	13	16	5	5	3000	496	82	4.3	8.8	8	0.4	0.56	< 0.5	< 0.1	0.073	0.133	< 0.1	2.63	7.8	18.5	30	75	174	4.1	1.5	0.17	< 0.1	0.7	< 0.01	0.3
S47	13.3	15	8	22	6	< 5	11000	596	79	1.2	14.6	11	0.1	0.65	< 0.5	< 0.1	0.028	0.175	0.1	2.26	3.37	16.6	23	30	129	17.4	0.7	0.12	< 0.1	1.3	< 0.01	< 0.2
S48	20.7	< 5	15	8	6	6	< 1000	355	54	21.7	29.6	9	0.5	0.56	< 0.5	< 0.1	0.048	0.118	0.2	1.1	1.83	21.4	86	41	89	5.8	2.4	0.12	< 0.1	2.3	< 0.01	< 0.2
S49	11.6	< 5	9	13	4	< 5	4000	143	27	113	26.5	6	2	0.84	< 0.5	0.2	0.062	0.104	0.1	0.95	1.25	8.8	53	26	102	8.1	4.7	0.21	< 0.1	2.3	0.02	0.6
S50	21.2	< 5	17	8	4	6	< 1000	189	44	129	20.4	8	1.5	0.92	< 0.5	< 0.1	0.05	0.136	0.1	2.02	1.64	16.2	55	38	129	4.2	5.1	0.12	< 0.1	4.2	0.12	< 0.2
S51	8.3	26	3	12	7	< 5	3000	157	26	60.9	13.6	7	2.6	1.21	< 0.5	< 0.1	0.037	0.169	0.2	1.78	1.55	14.1	63	28	153	14.2	2	0.2	< 0.1	2.1	0.05	0.3
S52	12.6	8	6	12	4	7	3000	170	26	73.5	17.6	6	1.3	0.84	< 0.5	< 0.1	0.039	0.184	0.2	1.59	1.77	9.9	222	28	142	11.2	3	0.12	< 0.1	2.8	0.02	0.2
S53	37.8	18	3	26	13	< 5	2000	734	223	4.5	8.7	31	0.3	2.19	< 0.5	< 0.1	0.113	0.201	0.2	0.96	1.23	49	62	42	474	6.5	0.5	< 0.05	< 0.1	5.2	0.02	< 0.2
S54	15.3	22	6	22	6	< 5	< 1000	369	82	5	12.3	11	0.3	2.08	< 0.5	< 0.1	0.062	0.108	0.1	1.15	1.33	23.4	77	36	255	13	0.8	0.13	< 0.1	6.2	< 0.01	< 0.2
S55	7.3	8	8	9	3	< 5	< 1000	114	27	73.1	15	7	1.6	0.59	< 0.5	0.2	0.027	0.125	0.2	1.28	0.93	4.1	21	17	277	33	2.5	0.08	< 0.1	2.8	0.01	0.3
S56	34.6	8	12	16	5	< 5	2000	545	70	34.5	18.2	13	0.9	0.75	< 0.5	< 0.1	0.057	0.138	0.2	1.08	2.17	9.6	100	13	289	13.9	3.3	0.07	< 0.1	10.6	< 0.01	< 0.2
S57	19.8	11	3	20	6	< 5	< 1000	315	96	3.8	7.9	13	0.5	1.53	< 0.5	< 0.1	0.026	0.132	0.2	0.89	1.62	103	59	25	277	10.5	2.8	0.08	< 0.1	18.7	< 0.01	< 0.2
S58B	55.7	9	2	32	9	< 5	3000	770	100	2.6	5.3	28	0.2	1.18	< 0.5	< 0.1	0.039	0.159	< 0.1	0.45	2.05	117	51	58	257	16.8	2.4	< 0.05	< 0.1	28.8	< 0.01	< 0.2
S59	4.9	44	24	7	5	5	< 1000	99	59	12.3	3.2	1	0.6	0.73	< 0.5	< 0.1	0.023	0.167	0.1	0.33	0.47	15.9	89	23	175	48.5	2.1	0.23	< 0.1	1.9	< 0.01	0.3
111	28	22	17	34	10	6	5000	428	76	59.1	30.8	16	3.8	1.75	< 0.5	0.2	0.194	0.289	0.3	1.48	1.58	35.2	89	50	352	22.2	3.3	0.11	< 0.1	3.4	0.01	0.6
112	22.9	264	20	6	38	7	1000	194	16	50	6.4	12	1.5	0.82	< 0.5	< 0.1	0.141	0.271	0.2	1.87	2.48	507	228	108	484	9.9	1.5	0.17	< 0.1	2.3	0.02	< 0.2
115	12.9	8	4	7	3	< 5	< 1000	63	12	83.3	13.2	3	1.4	0.6	< 0.5	0.1	0.038	0.141	0.2	1.32	1.2	7.9	35	22	130	6.8	3	0.09	< 0.1	1.8	< 0.01	0.4
117	61.5	25	20	37	12	6	7000	1050	85	41.1	30.7	32	3.8	1.68	< 0.5	0.5	0.101	0.244	0.3	1.69	2.04	27	338	73	321	14.1	6.8	0.11	< 0.1	21.2	0.02	0.5
118	22.2	9	7	16	8	< 5	1000	211	33	59.8	23.6	8	1.4	1.4	< 0.5	< 0.1	0.046	0.119	0.2	1.89	2.5	55.1	241	54	362	9.1	2.9	0.15	< 0.1	5.5	< 0.01	0.3
124	23.4	9	8	15	8	< 5	1000	222	36	63.7	23.7	10	1.4	1.42	< 0.5	< 0.1	0.046	0.125	0.2	2.02	2.71	54	247	57	374	11.4	3.1	0.13	< 0.1	5.7	< 0.01	0.4

Analyte Symbol	Tl	Bi	Ti	Cr	Y	Zr	Nb	Hf	Ta	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Li	Be	Sc	Mn	Rb	Sr	Cs	Ba	Ru	Pd	Pt
Unit Symbol	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Detection Limit	0.005	0.5	10	100	0.05	0.1	0.1	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.1	10	0.4	0.1	0.1	0.01	0.5	0.5	0.5	0.5
Analysis Method	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
S01	0.725	< 0.5	1280	< 100	1.66	20.4	4.6	0.58	0.1	2.65	5.14	0.61	2.55	0.5	0.15	0.41	0.05	0.32	0.06	0.18	0.02	0.15	0.03	15.5	0.5	< 10	207	47.6	82.4	0.73	198	< 0.5	< 0.5	< 0.5
S02	2.41	< 0.5	30	< 100	13.3	2.6	0.4	0.09	0.07	10.6	25.3	3.73	16.8	3.81	1.15	3.76	0.53	2.83	0.49	1.25	0.15	0.9	0.13	8.1	0.5	< 10	425	91.2	91.5	9.47	179	< 0.5	< 0.5	< 0.5
S03	0.21	< 0.5	130	< 100	1.19	0.7	0.7	0.03	0.08	2.68	4.1	0.66	2.7	0.42	0.09	0.38	0.04	0.21	0.03	0.1	0.01	0.06	0.02	3.2	0.2	< 10	422	32.3	231	1.85	171	< 0.5	< 0.5	< 0.5
S04	0.871	< 0.5	280	< 100	7.13	5.9	0.9	0.26	0.08	18.4	37.9	4.59	17.8	3.19	0.64	2.4	0.31	1.57	0.28	0.73	0.1	0.56	0.08	29.2	1.2	10	215	141	146	5.72	740	< 0.5	< 0.5	< 0.5
S05	0.212	< 0.5	180	< 100	5.74	4	0.7	0.12	0.07	12.1	15.4	3.38	13.7	2.4	0.51	1.83	0.21	1.15	0.18	0.46	0.06	0.34	0.06	2.4	0.5	< 10	98.2	27.3	226	0.63	278	< 0.5	< 0.5	< 0.5
S06	0.622	< 0.5	40	< 100	8.14	6.1	0.3	0.22	0.05	5.26	9.35	1.37	5.61	1.25	0.44	1.35	0.18	1.13	0.25	0.69	0.09	0.61	0.09	4.4	0.9	< 10	2560	56.2	53.2	0.6	232	< 0.5	< 0.5	< 0.5
S07	0.457	< 0.5	70	< 100	6.27	6.4	0.4	0.21	0.07	3.96	7.31	1.2	5.21	1.1	0.37	1.12	0.14	0.88	0.19	0.56	0.09	0.53	0.09	5.1	0.9	< 10	1510	48.2	91.8	0.51	264	< 0.5	< 0.5	< 0.5
S08	1.48	< 0.5	120	< 100	6.57	6.4	0.5	0.16	0.07	9.93	18.4	2.4	9.22	1.89	0.39	1.73	0.22	1.2	0.22	0.55	0.07	0.44	0.06	3	3.1	< 10	1840	70.4	93.5	3.05	373	< 0.5	< 0.5	< 0.5
S09	0.149	< 0.5	590	< 100	1.89	4.1	1.7	0.17	0.09	1.98	4.2	0.54	2.29	0.5	0.11	0.45	0.06	0.4	0.07	0.21	0.03	0.16	0.03	3	0.5	< 10	331	27.3	22.5	0.33	90.6	< 0.5	< 0.5	< 0.5
S10	0.15	< 0.5	430	< 100	2.04	4.9	1.5	0.12	0.07	2.35	5.1	0.64	2.59	0.55	0.14	0.51	0.06	0.4	0.07	0.2	0.03	0.18	0.03	3	0.4	< 10	49.5	13.6	35.6	0.22	90	< 0.5	< 0.5	< 0.5
S11	0.601	< 0.5	70	< 100	5.67	3.8	0.5	0.1	0.06	7.48	14.8	1.9	7.81	1.46	0.37	1.31	0.17	0.89	0.17	0.48	0.07	0.42	0.07	2.5	1.9	< 10	371	67	116	1.99	170	< 0.5	< 0.5	< 0.5
S12	0.628	< 0.5	90	< 100	4.09	4.6	0.6	0.16	0.05	4.94	10	1.24	5.07	1.12	0.35	1	0.14	0.8	0.14	0.39	0.04	0.28	0.04	2.8	1.9	< 10	983	80	270	1.43	412	< 0.5	< 0.5	< 0.5
S13	0.161	< 0.5	510	< 100	2.69	3.8	1.9	0.15	0.07	3.42	6.97	0.86	3.53	0.74	0.22	0.75	0.1	0.55	0.09	0.27	0.03	0.2	0.02	4.4	0.5	< 10	310	34.3	61.1	0.65	81.3	< 0.5	< 0.5	< 0.5
S14	0.356	< 0.5	100	< 100	3.79	1.9	0.5	0.07	0.03	3.6	7.5	1	4.1	0.88	0.22	0.8	0.11	0.61	0.12	0.33	0.05	0.24	0.04	6.3	1.5	< 10	220	49.7	215	2.31	259	< 0.5	< 0.5	< 0.5
S15	0.5	< 0.5	20	< 100	7.08	6.3	0.2	0.19	0.03	8.5	19.3	2.42	9.86	2	0.55	1.63	0.23	1.32	0.25	0.69	0.09	0.54	0.08	3.8	1.4	< 10	152	58.4	44.4	3.6	320	< 0.5	< 0.5	< 0.5
S16	0.666	< 0.5	130	< 100	2.99	4.7	0.4	0.16	0.04	4.82	9.17	1.15	4.39	0.88	0.25	0.78	0.1	0.57	0.1	0.28	0.04	0.26	0.03	3.1	1	< 10	180	68.8	46.5	2.91	180	< 0.5	< 0.5	< 0.5
S17	0.604	< 0.5	80	< 100	4.37	10.3	0.3	0.3	0.02	5.34	10.7	1.32	5.24	1.09	0.33	1.03	0.14	0.84	0.15	0.41	0.06	0.33	0.05	3	1.5	< 10	249	66.9	53.8	0.99	247	< 0.5	< 0.5	< 0.5
S18	0.194	< 0.5	310	< 100	4.71	4.2	1.1	0.15	0.07	8.58	11.4	2.39	9.76	1.83	0.47	1.43	0.16	0.85	0.15	0.41	0.05	0.37	0.04	4.7	0.6	< 10	278	44.2	337	0.63	301	< 0.5	< 0.5	< 0.5
S19	0.393	< 0.5	50	< 100	4.55	1.9	0.6	0.07	0.06	4.64	7.88	1.65	7.14	1.39	0.38	1.21	0.14	0.75	0.14	0.39	0.05	0.31	0.04	4.1	0.5	< 10	853	28.9	278	1.91	143	< 0.5	< 0.5	< 0.5
S20	0.595	< 0.5	70	< 100	3.17	2.2	0.3	0.08	0.05	3.51	7.92	1.03	4.17	0.9	0.25	0.85	0.1	0.56	0.1	0.29	0.04	0.21	0.03	6.5	1.5	< 10	237	62.1	156	1.54	364	< 0.5	< 0.5	< 0.5
S21	1.61	< 0.5	20	< 100	13.1	4.6	0.2	0.12	0.05	12.9	30.5	4.21	17.6	3.61	0.97	3	0.41	2.21	0.43	1.2	0.17	1.04	0.16	9.7	2.1	< 10	11100	106	90.9	3.67	599	< 0.5	< 0.5	< 0.5
S22	0.579	< 0.5	570	< 100	1.48	2.7	1.2	0.13	0.07	1.5	3.15	0.36	1.57	0.31	0.1	0.33	0.04	0.28	0.04	0.15	0.02	0.11	0.03	4.5	0.4	< 10	203	17.9	29.4	0.46	92	< 0.5	< 0.5	< 0.5
S23	0.513	< 0.5	270	< 100	2.54	1.8	0.9	0.08	0.06	3.37	7.59	1	4.44	0.93	0.29	0.83	0.1	0.56	0.09	0.22	0.03	0.16	0.03	6.3	0.8	< 10	224	18.1	128	0.83	139	< 0.5	< 0.5	< 0.5
S24	0.287	< 0.5	280	< 100	2.09	5	0.9	0.19	0.06	2.16	4.52	0.58	2.37	0.53	0.15	0.46	0.07	0.39	0.07	0.2	0.03	0.2	0.03	3.7	0.3	< 10	435	28.2	65.7	0.13	115	< 0.5	< 0.5	< 0.5
S25	0.537	< 0.5	690	< 100	1.52	2.2	1.5	0.11	0.06	1.61	3.41	0.37	1.58	0.36	0.11	0.3	0.04	0.27	0.05	0.15	0.02	0.13	0.03	7.7	0.4	< 10	177	25	94.7	0.61	203	< 0.5	< 0.5	< 0.5
S26	0.189	< 0.5	740	< 100	2	2.1	1.6	0.14	0.06	1.78	3.87	0.48	2.05	0.44	0.12	0.39	0.05	0.38	0.07	0.23	0.03	0.18	0.03	3.2	0.3	< 10	179	41.4	50.6	0.35	135	< 0.5	< 0.5	< 0.5
S26A	0.186	< 0.5	330	< 100	2.01	5.2	1.1	0.17	0.05	2.17	4.31	0.54	2.19	0.48	0.15	0.47	0.06	0.38	0.07	0.21	0.03	0.18	0.03	3.7	0.4	< 10	432	26.7	64.1	0.13	114	< 0.5	< 0.5	< 0.5
S27	0.084	< 0.5	240	< 100	1.85	1.5	0.7	0.09	0.05	2.29	5.1	0.66	2.71	0.53	0.14	0.45	0.06	0.31	0.06	0.19	0.02	0.14	0.03	2.5	0.6	< 10	83.5	20.3	128	0.33	176	< 0.5	< 0.5	< 0.5
S28	0.081	< 0.5	280	< 100	1.3	0.6	0.8	0.04	0.07	1.82	2.98	0.43	1.73	0.31	0.1	0.31	0.03	0.21	0.04	0.13	0.02	0.1	0.05	1.7	0.4	< 10	76.9	29.5	158	0.33	159	< 0.5	< 0.5	< 0.5
S29	0.086	< 0.5	370	< 100	2.66	5.8	1	0.21	0.05	2.94	6.59	0.85	3.31	0.72	0.21	0.61	0.09	0.47	0.1	0.27	0.04	0.24	0.05	3.2	0.8	< 10	264	22.4	23.9	0.21	142	< 0.5	< 0.5	< 0.5
S30	0.203	< 0.5	630	< 100	1.35	4	2	0.21	0.06	1.21	2.4	0.3	1.28	0.31	0.09	0.33	0.05	0.26	0.06	0.15	0.02	0.14	0.04	4.9	< 0.1	< 10	129	53.7	18.3	1.99	66.4	< 0.5	< 0.5	< 0.5
S31	1.03	< 0.5	120	< 100	5.71	7.1	0.5	0.24	0.02	6.04	13.9	1.71	7.1	1.38	0.4	1.24	0.16	0.97	0.19	0.53	0.07	0.47	0.07	4.2	0.9	< 10	1250	74.1	87.8	2.8	382	< 0.5	< 0.5	< 0.5
S32	1.23	< 0.5	20	< 100	11.3	10.4	< 0.1	0.3	< 0.02	19.9	46.2	5.15	20.5	3.96	1.07	3.44	0.46	2.44	0.45	1.08	0.14	0.77	0.12	4.2	1.2	< 10	1080	71.5	37.1	5.53	306	< 0.5	< 0.5	< 0.5
S33	0.651	< 0.5	160	< 100	3.04	1.8	0.4	0.08	0.04	4.58	10.7	1.12	4.53	0.84	0.21	0.71	0.09	0.53	0.09	0.26	0.03	0.2	0.04	3.2	1	< 10	1200	107	282	1.47	370	< 0.5	< 0.5	< 0.5
S34	0.605	< 0.5	140	< 100	3.09	3.4	0.5	0.15	0.05	4.55	11.3	1.16	4.73	1	0.27	0.88	0.11	0.64	0.12	0.28	0.04	0.19	0.08	4.2	1.4	< 10	309	43.3	73.8	1.4	210	< 0.5	< 0.5	< 0.5
S35	1.09	< 0.5	60	< 100	1.95	3.1	0.2	0.1	0.03	3.05	4.94	0.78	3.06	0.7	0.18	0.58	0.07	0.43	0.07	0.18	0.03	0.13	0.03	4.8	1.3	< 10	391	66.4	129	3.02	402	< 0.5	< 0.5	< 0.5
S36	0.627	< 0.5	230	< 100	6.28	4	1	0.13	0.04	11.1	20.2	2.72	10.5	1.93	0.43	1.57	0.21	1.1	0.2	0.53	0.07	0.38	0.09	7.2	1.5	< 10	188	79.4	152	12.5	336	< 0.5	< 0.5	< 0.5
S37	0.444	< 0.5	380	< 100	2.67	2.6	0.8	0.12	0.03	4.35	9.74	1.22	5.06	0.92	0.2	0.76	0.09	0.51	0.09	0.24	0.03	0.18	0.05	9.8	0.8	< 10	134	74.2	62	3.71	227	< 0.5	< 0.5	< 0.5
S38	0.281	< 0.5	370	< 100	1.63	2.6	1.1	0.11	0.04	2.35	4.41	0.55	2.14	0.39	0.1	0.33	0.05	0.3	0.05	0.16	0.02	0.11	0.06	3.3	0.9	< 10	237	33.4	72.3	0.44	220	< 0.5	< 0.5	< 0.5
S39	0.226	< 0.5	480	< 100	1.95	3.1	1	0.09	0.05	3.54	6.28	0.79	3.04	0.57	0.14	0.53	0.06	0.36	0.06	0.17	0.02	0.15	0.03	2.5	0.7	< 10	126	48	45.5	1.48	162	< 0.5	< 0.5	< 0.5
S40	0.416	< 0.5	160	< 100	19.7	13.3	1.2	0.37	0.06	34.2	67.2	10	41.4	7.61	1.83	6.32	0.79	3.9	0.66	1.64	0.2	1.16	0.16	3.6	1.2	< 10	540	60.9	223	1.35	262	< 0.5	< 0.5	< 0.5
S41	1.73	< 0.5	20	< 100	18.3	12.3	0.2	0.37	0.05	19.9	18.2	5.58	22.8	4.27	1.22	3.97	0.48	2.57	0.5	1.39	0.17	1	0.23	2.7	0.6	< 10	1260	46.5	275	2.5	104	< 0.5	< 0.5	< 0.5
S42	0.242	< 0.5	80	< 100	5.06	4.7	0.4	0.14	0.06	3.63	4.55	1.11	4.71	0.97	0.35	1.02	0.12	0.7	0.15	0.41	0.06	0.38	0.1	1.2	0.1	< 10	567	6.6	280	0.28	130	< 0.5	< 0.5	< 0.5
S43	0.182	< 0.5	50	< 100	4.93	4	0.3	0.14	0.05	3.42	4.2	1	4.32	0.94	0.33	0.89	0.11	0.65	0.13	0.4	0.06	0.38	0.08	1.1	0.1	< 10	522	6.7	268	0.28	125	< 0.5	< 0.5	< 0.5
S45	0.257	< 0.5	480	< 100	4.29	5.4	1.5	0.19	0.06	7.21	10.5	1.28	4.6	1.05	0.2	0.83	0.12	0.68	0.12	0.38	0.05	0.27	0.09	3.6	0.3	< 10	1240	14.9	33.7	0.31	93.3	< 0.5	< 0.5	< 0.5
S46	1.32	< 0.5	240	< 100	29.3	13.3	1.3	0.41	0.05	29.8	76.9	8.49	33.5	7	2.36	7.53	1.07	5.99	1.12	3.01	0.41	2.63	0.41	22.2	0.4	< 10	2490	87.5	81.9	8.76	119	< 0.5	< 0.5	< 0.5
S47	0.227	< 0.5	60	< 100	29.4	16.7	0.3	0.48	0.03	25.5	50.9	6.7	26.4	5.53	1.35	5.2	0.74	4.21	0.83	2.4	0.32	2.1	0.34	1.8	0.6	< 10	5290	9.7	50.5	0.17	118	< 0.5	< 0.5	< 0.5
S48	0.343	< 0.5	270	< 100	3.91	5.8	0.5	0.18	0.03	3.9	8.33	1	4.29	0.92	0.28	0.91	0.13	0.76	0.14	0.39	0.05	0.34	0.08	4	0.5	< 10	134	33.4	73.5	1.46	197	< 0.5	< 0.5	< 0.5
S49	0.188	< 0.5	1100	< 100	3.38	5.7	2	0.18	0.09	5.09	6.63	0.88	3.52	0.78	0.23	0.73	0.1	0.64	0.12	0.37	0.05	0.28	0.06	3.1	0.5	< 10	161	42.5	38.2	0.71	105	< 0.5	< 0.5	< 0.5
S50	0.355	0.7	820	< 100	3.76	8.2	1.9	0.2	0.07	3.96	7.98	1.01	3.99	0.9	0.27	0.81	0.14	0.76	0.14	0.38	0.05	0.35	0.07	11.8	0.6	< 10	176	31.8	29	0.75	175	< 0.5	< 0.5	< 0.5
S51	0.261	< 0.5	550	< 100	4.36	4.9	2.1	0.17	0.08	8.06	14.8	2	7.59	1.45	0.3	1.12	0.15	0.73	0.15	0.37	0.05	0.29	0.09	6.4	0.5	< 10	263	16.3	131	0.37	177	< 0.5	< 0.5	< 0.5
S52	0.347	< 0.5	640	< 100	3.96	4.1	1.6	0.13	0.06	6.78	12.4	1.68	6.62	1.24	0.29	0.95	0.12	0.67	0.13	0.36	0.05	0.28	0.07	4.1	0.7	< 10	126	40.8	80.1	1.12	206	< 0.5	3.1	< 0.5
S53	0.982	< 0.5	30	< 100	8.48	6.4	0.2	0.18	0.03	8.04	18.2	2.5	10.7	2.42	0.73	2.29	0.33	1.73	0.31	0.81	0.11	0.65	0.1	8.4	1.5	< 10	4490	94.4	114	3.3	350	< 0.5	< 0.5	< 0.5
S54	0.907	< 0.5	120	< 100	2.32	8.3	0.4	0.27	0.02	3.16	6.54	0.81	3.37	0.67	0.19	0.63	0.07	0.45	0.08	0.23	0.03	0.23	0.05	2.9	0.8	< 10	3070	55.5	101	0.34	381	< 0.5	< 0.5	< 0.5
S55	0.274	< 0.5	470	< 100	1.15	4.7	2	0.18	0.08	1.71	3.31	0.39	1.5	0.31	0.08	0.33	0.04	0.25	0.05	0.12	0.02	0.1	0.03	3.7	0.1	< 10	218	11.1	52.3	0.08	126	< 0.5	< 0.5	< 0.5
S56	0.523	< 0.5	280	< 100	3.27	5.8	1	0.21	0.07	5.25	10	1.17	4.6	0.94	0.28	0.82	0.12	0.7	0.12	0.32	0.04	0.24	0.08	2.6	0.9	< 10	459	50.6	97.8	0.4	261	< 0.5	< 0.5	< 0.5
S57	1.57	< 0.5	100	< 100	4.35	8.7	0.3	0.26	< 0.02	5.11	11.4	1.3	5.02	1.03	0.29	0.94	0.13	0.78	0.15	0.41	0.06	0.37	0.07	2.1	1.1	< 10	44100	124	64.4	7.06	274	< 0.5	< 0.5	< 0.5
S58B	3.52	< 0.5	20	< 100	11.1	9.9	0.1	0.26	0.03	13.3	38.4	3.34	13.4	3.03	0.96	2.8	0.37	2.02	0.37	0.92	0.12	0.78	0.15	10.6	2.3	< 10	31400	230	37.3	11.8	245	< 0.5	< 0.5	< 0.5
S59	1.92	< 0.5	130	< 100	4.43	15.1	0.7	0.26	0.04	5.84	7.72	1.49	5.89	1.11	0.3	0.88	0.11	0.61	0.12	0.36	0.05	0.35	0.1	7.4	1.1	< 10	2880	64.8	142	1.09	551	< 0.5	< 0.5	< 0.5
111	1.16	< 0.5	920	< 100	8.31	9.5	1.1	0.14	0.05	11.9	21.9	2.84	11.2	2.23	0.59	2	0.26	1.39	0.27	0.72	0.09	0.52	0.14	4.2	0.4	< 10	388	58.3	123	0.52	235	< 0.5	< 0.5	< 0.5
112	2.18	< 0.5	280	< 100	23.1	20.4	0.7	0.27	0.02	36.8	54.2	9.94	40.2	7.49	1.84	6.23	0.79	4.03	0.73	1.89	0.25	1.41	0.3	14.9	0.5	10	11100	37.2	1040	5.1	451	< 0.5	< 0.5	< 0.5
115	0.443	< 0.5	660	< 100	2.83	19.8	2.2	0.17	0.09	5.25	7.65	1.15	4.3	0.8	0.21	0.64	0.09	0.48	0.09	0.24	0.03	0.27	0.18	5.8	0.8	< 10	80.2	50.8	92.3	2.61	250	< 0.5	< 0.5	< 0.5
117	1.02	< 0.5	880	< 100	4.15	14.7	1.3	0.19	0.07	5.65	10.5	1.54	5.33	1.12	0.39	0.98	0.13	0.73	0.14	0.36	0.05	0.32	0.18	10.3	1.6	< 10	1380	99.6	219	1.32	617	< 0.5	< 0.5	< 0.5
118	0.482	< 0.5	580	< 100	5.44	16.2	1.4	0.21	0.06	10.7	21.4	2.69	10.6	1.94	0.4	1.54	0.19	1.05	0.18	0.47	0.06	0.37	0.18	4.7	1.1	< 10	439	58.9	99.8	1	390	< 0.5	< 0.5	< 0.5
124	0.479	< 0.5	610	< 100	5.8	17	1.5	0.19	0.07	11.9	24.3	2.9	11	2.02	0.42	1.59	0.21	1.1	0.2	0.54	0.07	0.38	0.19	4.7	1	< 10	444	63	104	1.11	422	< 0.5	< 0.5	< 0.5

Location of Soil Samples

Site	East	North	Elevation
S01	48.827972	-86.71139	281.944
S02	48.82843	-86.71141	289.743
S03	48.828849	-86.711394	292.292
S04	48.82932	-86.711373	303.39
S05	48.829749	-86.711406	313.116
S06	48.830218	-86.711429	333.119
S07	48.830642	-86.711479	355.594
S08	48.831124	-86.711476	371.13
S09	48.831556	-86.711443	373.467
S10	48.832004	-86.711524	356.689
S11	48.832255	-86.712745	345.711
S12	48.831789	-86.712697	349.066
S13	48.831339	-86.712765	354.568
S14	48.830911	-86.712784	352.226
S15	48.828148	-86.718155	319.561
S16	48.828513	-86.718165	323.385
S17	48.828955	-86.718148	334.242
S18	48.829389	-86.718103	333.389
S19	48.82989	-86.718111	327.133
S20	48.830244	-86.718073	353.239
S21	48.83064	-86.71821	371.444
S22	48.831211	-86.718284	407.415
S23	48.831605	-86.718286	408.828
S24	48.832105	-86.718296	410.924
S25	48.832539	-86.71819	397.568
S26	48.832288	-86.71961	384.542
S27	48.831849	-86.719572	378.59
S28	48.831421	-86.719584	381.933
S29	48.830936	-86.719376	381.625
S30	48.830519	-86.719502	372.561
S31	48.830105	-86.719539	369.852
S32	48.829644	-86.719551	350.69
S33	48.829133	-86.719505	334.258
S34	48.82871	-86.719583	335.749
S35	48.828175	-86.719639	335.377
S36	48.828076	-86.716866	317.974
S37	48.828497	-86.716829	322.43
S38	48.828934	-86.716871	338.82
S39	48.829427	-86.716776	333.083
S40	48.829806	-86.71683	328.584
S41	48.83031	-86.716849	332.454
S42	48.830701	-86.716812	359.971
S43	48.831153	-86.716843	389.179
S44	48.831713	-86.717109	395.688
S45	48.832044	-86.716998	392.019

Site	East	North	Elevation
S46	48.832512	-86.716918	384.556
S47	48.833001	-86.716827	370.67
S48	48.827957	-86.712793	292.256
S49	48.828191	-86.712775	295.772
S50	48.828647	-86.712814	295.414
S51	48.82908	-86.71276	299.158
S52	48.829473	-86.712761	305.777
S53	48.830011	-86.712761	318.2
S54	48.830453	-86.712761	334.933
S55	48.831837	-86.714063	346.027
S56	48.83162	-86.713981	344.769
S57	48.831126	-86.714031	346.619
S58	48.830624	-86.714129	329.855
S58B	48.830419	-86.714182	328.895
S59	48.830185	-86.714072	327.15
83	48.828421	-86.717019	311.444
111	48.82811	-86.714356	281.725
112	48.828507	-86.714113	286.119
115A	48.828946	-86.714088	
117	48.829348	-86.714103	298.613
118	48.829862	-86.714121	305.514

Final Report
Activation Laboratories

Report Number: A17-13784
Report Date: 19/1/2018

Analyte Symbol	Ti	S	P	Li	Be	B	Na	Mg	Al	K	Bi	Ca	Sc	V	Cr	Mn	Fe
Unit Symbol	%	%	%	ppm	ppm	ppm	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%
Detection Limit	0.001	1	0.001	0.1	0.1	1	0.001	0.01	0.01	0.01	0.02	0.01	0.1	1	1	1	0.01
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
015	0.152	8	0.101	24.7	0.1	2	0.166	1.93	1.79	0.3	0.1	0.73	12.3	126	117	616	9.96
026	0.368	< 1	0.118	55.4	1.1	8	0.041	1.14	3.92	0.81	0.17	0.92	15.9	230	3	3110	9.99
031	0.006	< 1	0.013	0.9	< 0.1	2	0.012	0.12	0.34	0.07	0.13	0.05	0.5	5	4	572	6.46
031B	0.016	< 1	0.019	0.6	< 0.1	2	0.016	0.18	0.41	0.03	0.18	0.38	0.1	6	3	3990	10.8
034	0.031	< 1	0.014	1.2	0.3	3	0.015	0.2	1.35	0.05	< 0.02	3.95	1	4	< 1	9080	13.7
081	0.195	5	0.18	35.6	1	7	0.229	3.01	2.72	0.68	0.26	1.21	14.2	124	158	746	5.24

Analyte Symbol	Co	Ni	Cu	Zn	Ga	Ge	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Te	Cs	Ba	La	Ce
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Detection Limit	0.1	0.1	0.01	0.1	0.02	0.1	0.1	0.1	0.5	0.01	0.1	0.1	0.01	0.002	0.02	0.05	0.02	0.02	0.02	0.5	0.5	0.01
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
015	49.1	101	98.4	405	11.4	< 0.1	24.2	9.2	18	12.9	29.4	0.1	3.13	0.138	0.13	0.9	0.85	0.13	0.59	5.4	5.6	15.7
026	17.3	25.9	8.5	87.2	19.6	< 0.1	< 0.1	58.6	24.7	14	6	0.2	11.3	0.01	0.05	1.32	0.06	0.03	6.51	148	13.4	31.5
031	1.2	1.5	8.11	28.5	4.44	< 0.1	< 0.1	3.3	1.2	1.5	9	0.2	0.89	0.066	< 0.02	0.16	0.09	0.03	0.3	47.4	0.7	1.72
031B	2.2	2.6	14.3	9.6	0.22	< 0.1	< 0.1	1.2	10.8	5.37	5.9	0.1	0.59	0.073	< 0.02	< 0.05	0.06	0.14	0.31	119	1	2.18
034	1.3	2.3	3.2	12	7.41	< 0.1	< 0.1	3.9	124	17.9	12.6	0.2	1.82	< 0.002	< 0.02	0.71	0.03	0.03	0.79	31.5	17.5	34.8
081	25.5	53.4	124	83.1	14.6	< 0.1	157	27.9	53.2	14.5	8.5	0.3	1.19	0.096	0.07	1.04	0.07	0.03	4.44	9.9	51.3	107

Analyte Symbol	Cd	Pr	Nd	Se	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Th	U	Hg
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppb
Detection Limit	0.01	0.1	0.02	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.1	0.1	10
Analysis Method	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
015	0.72	2.2	10.3	0.4	2.4	0.8	2.5	0.4	2.7	0.6	1.5	0.2	1.3	0.2	0.7	< 0.05	< 0.1	0.003	3.9	1.11	2.53	0.7	0.2	50
026	< 0.01	4	18.6	< 0.1	3.2	1.1	3.8	0.6	3.3	0.7	1.7	0.2	1.4	0.2	< 0.1	< 0.05	0.1	0.002	0.5	0.27	7.53	2.2	0.5	< 10
031	< 0.01	0.2	0.93	0.9	0.3	< 0.1	0.2	< 0.1	0.2	< 0.1	0.2	< 0.1	0.2	< 0.1	0.2	< 0.05	< 0.1	< 0.001	< 0.5	0.03	54.1	0.6	< 0.1	< 10
031B	< 0.01	0.3	1.12	0.2	0.2	0.2	0.5	< 0.1	0.6	0.1	0.4	< 0.1	0.4	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	4.3	< 0.02	4.7	0.3	0.1	< 10
034	0.05	4.3	20.2	< 0.1	3.1	0.7	3.6	0.5	3	0.6	1.7	0.3	1.8	0.3	0.3	< 0.05	0.2	< 0.001	< 0.5	< 0.02	1.6	1.9	0.2	< 10
081	0.04	13.4	57.4	1.5	8.2	1.7	6.1	0.6	3.3	0.6	1.5	0.2	1.4	0.2	< 0.1	< 0.05	0.3	< 0.001	0.9	1.2	18.5	12.5	3.1	< 10

Quality Analysis ... *Innovative Technologies*

Date Submitted: 01-Sep-17
Invoice No.: A17-09502-Revised
Invoice Date: 23-Nov-17
Your Reference:

Galex Geology
450 Bonner Ave.
Winnipeg MB R2G 1C3
Canada

ATTN: George Gale

CERTIFICATE OF ANALYSIS

65 Soil samples were submitted for analysis.

The following analytical package(s) were requested: Code 7-EnhESE-Enhanced Enzyme Selective Extraction 7-EnhESE-Enhanced Enzyme Selective Extraction ICP/MS(ENZYME)

REPORT **A17-09502-Revised**

Notes:

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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Analyte Symbol	Al	Ca	Fe	K	Mg	Na	Cl	Br	I	V	As	Se	Mo	Sb	Te	W	Re	Au	Hg	Th	U	Co	Ni
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Lower Limit	0.5	5	1	5	2	5	1000	1	1	0.1	0.1	1	0.1	0.01	0.5	0.1	0.005	0.005	0.1	0.01	0.01	0.2	1
Method Code	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
S01	9.8	10	8	10	5	13	4000	98	18	170	18.4	4	2.0	1.95	< 0.5	3.6	0.016	< 0.005	< 0.1	1.11	0.78	9.8	66
S02	29.0	25	6	16	8	< 5	3000	670	76	1.7	2.9	5	1.5	0.49	< 0.5	< 0.1	0.075	< 0.005	< 0.1	0.39	1.29	30.5	191
S03	2.3	51	< 1	< 5	10	6	< 1000	68	10	11.9	2.3	2	2.1	0.59	< 0.5	0.3	0.018	< 0.005	< 0.1	0.20	0.60	17.9	27
S04	20.9	11	6	17	6	< 5	1000	477	49	25.8	7.6	4	1.0	1.28	< 0.5	< 0.1	0.083	0.458	0.4	1.45	2.43	25.1	95
S05	5.5	67	1	< 5	10	5	1000	143	27	20.0	5.1	4	2.2	0.83	< 0.5	< 0.1	0.030	0.015	0.1	0.65	1.62	5.7	39
S06	27.9	8	3	17	6	< 5	3000	293	64	2.5	5.1	7	< 0.1	0.79	< 0.5	< 0.1	0.067	0.008	< 0.1	0.63	1.34	37.5	66
S07	13.4	26	2	14	7	< 5	< 1000	227	45	3.3	3.9	4	< 0.1	1.03	< 0.5	< 0.1	0.016	0.033	< 0.1	0.59	0.98	9.6	21
S08	66.4	16	5	27	9	8	4000	619	144	2.0	4.6	22	0.9	1.37	< 0.5	< 0.1	0.051	0.021	< 0.1	0.94	2.04	6.7	40
S09	8.2	< 5	4	8	< 2	< 5	< 1000	91	19	26.5	15.3	4	1.1	1.06	< 0.5	0.2	0.034	< 0.005	< 0.1	0.86	0.94	1.6	6
S10	10.6	< 5	4	5	< 2	< 5	1000	67	14	63.5	13.0	3	0.8	0.37	< 0.5	< 0.1	0.036	< 0.005	< 0.1	0.62	1.05	3.5	75
S11	21.7	15	3	11	7	< 5	1000	593	53	8.1	6.4	7	0.1	1.45	< 0.5	< 0.1	0.046	< 0.005	< 0.1	0.66	1.66	5.9	48
S12	27.0	27	6	13	14	< 5	2000	573	48	11.3	15.2	9	0.3	1.16	< 0.5	< 0.1	0.044	0.014	< 0.1	0.52	1.25	27.5	87
S13	12.2	6	7	8	4	< 5	< 1000	176	30	51.9	18.8	6	0.8	0.43	< 0.5	< 0.1	0.053	< 0.005	< 0.1	0.92	1.88	4.4	36
S14	17.6	40	5	12	8	< 5	1000	309	36	3.4	4.6	8	0.3	1.23	< 0.5	< 0.1	0.055	0.054	< 0.1	0.44	1.41	9.2	22
S15	24.2	< 5	1	8	3	< 5	2000	826	78	3.9	5.2	8	< 0.1	0.81	< 0.5	< 0.1	0.046	< 0.005	< 0.1	0.67	1.82	7.8	25
S16	24.2	< 5	2	6	2	< 5	1000	326	45	11.0	4.4	3	< 0.1	0.43	< 0.5	< 0.1	0.042	< 0.005	< 0.1	0.68	1.44	8.4	16
S17	26.1	< 5	4	6	2	< 5	2000	758	84	2.9	6.7	6	< 0.1	1.10	< 0.5	< 0.1	0.039	< 0.005	< 0.1	1.19	1.40	6.9	25
S18	7.4	81	3	10	8	< 5	2000	127	21	36.7	5.5	2	0.9	0.71	< 0.5	< 0.1	0.107	0.035	< 0.1	0.66	0.99	5.9	48
S19	10.6	82	< 1	< 5	8	5	1000	506	42	14.4	2.6	14	2.2	1.04	< 0.5	< 0.1	0.087	0.083	0.2	0.38	1.11	4.5	30
S20	22.1	22	3	10	6	< 5	1000	286	35	4.7	3.7	10	0.2	2.04	< 0.5	< 0.1	0.040	0.070	< 0.1	0.42	0.95	22.4	61
S21	21.8	12	< 1	18	8	< 5	2000	592	61	1.6	5.1	16	0.2	0.83	< 0.5	< 0.1	0.133	0.088	< 0.1	0.51	5.16	226	108
S22	7.9	< 5	5	7	2	5	< 1000	112	25	69.5	14.8	6	1.3	1.57	< 0.5	0.2	0.046	< 0.005	< 0.1	0.77	1.26	8.7	11
S23	14.0	36	3	< 5	3	< 5	< 1000	97	10	11.3	4.2	3	0.6	1.14	< 0.5	< 0.1	0.139	0.066	< 0.1	0.46	1.32	5.9	14
S24	13.9	8	9	9	4	< 5	2000	431	39	35.0	22.1	12	0.5	0.69	< 0.5	< 0.1	0.043	< 0.005	< 0.1	0.87	1.28	4.7	68
S25	12.3	10	7	11	6	7	3000	286	30	99.0	22.7	8	0.8	0.70	< 0.5	0.2	0.056	0.032	< 0.1	0.85	0.86	10.2	102
S26	10.3	< 5	4	14	4	5	6000	188	32	96.7	37.7	10	2.5	1.35	< 0.5	0.2	0.102	< 0.005	< 0.1	1.00	1.09	6.7	25
S26A	13.7	8	10	9	4	< 5	3000	406	37	38.9	21.4	12	0.6	0.60	< 0.5	< 0.1	0.027	0.032	0.1	0.97	1.26	4.6	63
S27	6.3	19	2	5	4	< 5	< 1000	109	18	14.7	4.9	3	0.5	0.63	< 0.5	< 0.1	0.065	0.145	0.2	0.32	1.41	19.4	26
S28	5.0	26	1	< 5	4	< 5	< 1000	65	11	13.7	3.8	2	0.4	0.51	< 0.5	< 0.1	0.016	0.116	0.1	0.22	1.07	4.7	14
S29	10.7	< 5	6	8	2	6	2000	120	27	48.5	11.2	5	0.8	0.62	< 0.5	< 0.1	0.062	0.066	0.1	1.00	1.49	7.1	21
S30	5.2	< 5	3	14	< 2	6	2000	82	17	126	21.9	5	2.6	0.67	< 0.5	0.3	0.042	0.065	0.2	0.91	0.80	3.9	14
S31	20.7	9	8	15	5	6	5000	646	71	14.9	20.0	16	0.6	0.91	< 0.5	< 0.1	0.121	0.075	< 0.1	1.59	2.48	39.2	262
S32	33.5	< 5	1	12	4	< 5	3000	1340	112	4.3	4.1	8	< 0.1	0.20	< 0.5	< 0.1	0.082	0.147	< 0.1	1.14	3.25	28.0	35
S33	13.1	50	2	12	13	< 5	3000	357	22	12.1	4.4	12	0.6	1.17	< 0.5	< 0.1	0.047	0.024	< 0.1	0.35	1.01	40.8	34
S34	28.0	9	2	7	3	< 5	2000	513	46	5.2	5.9	9	< 0.1	0.61	< 0.5	< 0.1	0.070	0.014	< 0.1	0.73	1.13	10.6	27
S35	21.1	8	2	9	5	6	4000	667	50	4.1	7.5	14	0.1	1.83	< 0.5	< 0.1	0.065	< 0.005	< 0.1	0.59	0.96	26.1	65
S36	18.2	17	5	9	6	< 5	< 1000	215	28	19.8	6.0	4	0.6	0.75	< 0.5	< 0.1	0.092	0.048	< 0.1	1.07	2.22	18.4	80
S37	22.6	< 5	12	9	4	< 5	2000	276	44	39.3	11.6	5	0.6	0.83	< 0.5	< 0.1	0.075	0.039	< 0.1	1.16	1.94	12.7	48
S38	7.7	7	< 1	11	4	6	< 1000	52	6	38.9	8.4	2	1.2	0.60	< 0.5	0.1	0.095	0.073	< 0.1	0.79	0.99	6.3	21
S39	12.2	< 5	4	7	2	< 5	< 1000	62	13	32.0	11.3	2	0.9	0.32	< 0.5	< 0.1	0.027	0.006	< 0.1	0.92	1.34	8.5	88
S40	19.9	60	3	< 5	6	< 5	< 1000	410	13	72.6	4.9	5	0.5	2.25	< 0.5	< 0.1	0.042	0.122	< 0.1	2.53	4.12	8.5	29

Analyte Symbol	Al	Ca	Fe	K	Mg	Na	Cl	Br	I	V	As	Se	Mo	Sb	Te	W	Re	Au	Hg	Th	U	Co	Ni
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Lower Limit	0.5	5	1	5	2	5	1000	1	1	0.1	0.1	1	0.1	0.01	0.5	0.1	0.005	0.005	0.1	0.01	0.01	0.2	1
Method Code	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
S41	8.5	97	1	< 5	9	< 5	1000	683	96	1.4	4.7	26	1.5	1.23	< 0.5	< 0.1	0.103	0.308	< 0.1	0.89	2.09	34.4	59
S42	3.0	106	4	< 5	10	< 5	2000	211	33	2.4	7.9	5	1.1	1.03	< 0.5	< 0.1	0.063	0.084	0.1	0.50	0.80	17.3	31
S43	3.0	100	5	< 5	9	< 5	2000	204	31	2.1	7.8	4	1.1	1.02	< 0.5	< 0.1	0.055	0.090	< 0.1	0.46	0.76	16.4	28
S45	5.8	< 5	3	6	2	< 5	4000	105	23	29.8	13.7	6	1.4	0.74	< 0.5	< 0.1	0.024	0.078	0.1	0.91	1.05	5.0	16
S46	13.6	16	13	16	5	5	3000	496	82	4.3	8.8	8	0.4	0.56	< 0.5	< 0.1	0.073	0.133	< 0.1	2.63	7.80	18.5	30
S47	13.3	15	8	22	6	< 5	11000	596	79	1.2	14.6	11	0.1	0.65	< 0.5	< 0.1	0.028	0.175	0.1	2.26	3.37	16.6	23
S48	20.7	< 5	15	8	6	6	< 1000	355	54	21.7	29.6	9	0.5	0.56	< 0.5	< 0.1	0.048	0.118	0.2	1.10	1.83	21.4	86
S49	11.6	< 5	9	13	4	< 5	4000	143	27	113	26.5	6	2.0	0.84	< 0.5	0.2	0.062	0.104	0.1	0.95	1.25	8.8	53
S50	21.2	< 5	17	8	4	6	< 1000	189	44	129	20.4	8	1.5	0.92	< 0.5	< 0.1	0.050	0.136	0.1	2.02	1.64	16.2	55
S51	8.3	26	3	12	7	< 5	3000	157	26	60.9	13.6	7	2.6	1.21	< 0.5	< 0.1	0.037	0.169	0.2	1.78	1.55	14.1	63
S52	12.6	8	6	12	4	7	3000	170	26	73.5	17.6	6	1.3	0.84	< 0.5	< 0.1	0.039	0.184	0.2	1.59	1.77	9.9	222
S53	37.8	18	3	26	13	< 5	2000	734	223	4.5	8.7	31	0.3	2.19	< 0.5	< 0.1	0.113	0.201	0.2	0.96	1.23	49.0	62
S54	15.3	22	6	22	6	< 5	< 1000	369	82	5.0	12.3	11	0.3	2.08	< 0.5	< 0.1	0.062	0.108	0.1	1.15	1.33	23.4	77
S55	7.3	8	8	9	3	< 5	< 1000	114	27	73.1	15.0	7	1.6	0.59	< 0.5	0.2	0.027	0.125	0.2	1.28	0.93	4.1	21
S56	34.6	8	12	16	5	< 5	2000	545	70	34.5	18.2	13	0.9	0.75	< 0.5	< 0.1	0.057	0.138	0.2	1.08	2.17	9.6	100
S57	19.8	11	3	20	6	< 5	< 1000	315	96	3.8	7.9	13	0.5	1.53	< 0.5	< 0.1	0.026	0.132	0.2	0.89	1.62	103	59
S58B	55.7	9	2	32	9	< 5	3000	770	100	2.6	5.3	28	0.2	1.18	< 0.5	< 0.1	0.039	0.159	< 0.1	0.45	2.05	117	51
S59	4.9	44	24	7	5	5	< 1000	99	59	12.3	3.2	1	0.6	0.73	< 0.5	< 0.1	0.023	0.167	0.1	0.33	0.47	15.9	89
111	28.0	22	17	34	10	6	5000	428	76	59.1	30.8	16	3.8	1.75	< 0.5	0.2	0.194	0.289	0.3	1.48	1.58	35.2	89
112	22.9	264	20	6	38	7	1000	194	16	50.0	6.4	12	1.5	0.82	< 0.5	< 0.1	0.141	0.271	0.2	1.87	2.48	507	228
115	12.9	8	4	7	3	< 5	< 1000	63	12	83.3	13.2	3	1.4	0.60	< 0.5	0.1	0.038	0.141	0.2	1.32	1.20	7.9	35
117	61.5	25	20	37	12	6	7000	1050	85	41.1	30.7	32	3.8	1.68	< 0.5	0.5	0.101	0.244	0.3	1.69	2.04	27.0	338
118	22.2	9	7	16	8	< 5	1000	211	33	59.8	23.6	8	1.4	1.40	< 0.5	< 0.1	0.046	0.119	0.2	1.89	2.50	55.1	241
124	23.4	9	8	15	8	< 5	1000	222	36	63.7	23.7	10	1.4	1.42	< 0.5	< 0.1	0.046	0.125	0.2	2.02	2.71	54.0	247

Analyte Symbol	Cu	Zn	Pb	Ga	Ge	Ag	Cd	In	Sn	Tl	Bi	Ti	Cr	Y	Zr	Nb	Hf	Ta	La	Ce	Pr	Nd	Sm
Unit Symbol	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Lower Limit	1	5	0.1	0.3	0.05	0.1	0.1	0.01	0.2	0.005	0.5	10	100	0.05	0.1	0.1	0.01	0.02	0.01	0.01	0.01	0.01	0.01
Method Code	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
S01	30	138	49.1	4.3	0.25	< 0.1	2.4	< 0.01	0.7	0.725	< 0.5	1280	< 100	1.66	20.4	4.6	0.58	0.10	2.65	5.14	0.61	2.55	0.50
S02	85	181	9.8	< 0.3	0.09	< 0.1	1.3	< 0.01	< 0.2	2.41	< 0.5	30	< 100	13.3	2.6	0.4	0.09	0.07	10.6	25.3	3.73	16.8	3.81
S03	16	42	13.9	< 0.3	0.14	< 0.1	0.6	< 0.01	< 0.2	0.210	< 0.5	130	< 100	1.19	0.7	0.7	0.03	0.08	2.68	4.10	0.66	2.70	0.42
S04	54	128	10.1	1.8	0.22	< 0.1	3.8	0.02	0.2	0.871	< 0.5	280	< 100	7.13	5.9	0.9	0.26	0.08	18.4	37.9	4.59	17.8	3.19
S05	30	70	3.0	0.7	0.09	< 0.1	1.9	< 0.01	0.8	0.212	< 0.5	180	< 100	5.74	4.0	0.7	0.12	0.07	12.1	15.4	3.38	13.7	2.40
S06	23	228	6.4	0.4	< 0.05	< 0.1	7.7	< 0.01	< 0.2	0.622	< 0.5	40	< 100	8.14	6.1	0.3	0.22	0.05	5.26	9.35	1.37	5.61	1.25
S07	16	78	7.8	0.3	< 0.05	< 0.1	4.3	< 0.01	< 0.2	0.457	< 0.5	70	< 100	6.27	6.4	0.4	0.21	0.07	3.96	7.31	1.20	5.21	1.10
S08	15	394	6.5	0.7	< 0.05	< 0.1	16.4	< 0.01	< 0.2	1.48	< 0.5	120	< 100	6.57	6.4	0.5	0.16	0.07	9.93	18.4	2.40	9.22	1.89
S09	8	61	7.8	3.3	0.09	< 0.1	1.9	< 0.01	0.3	0.149	< 0.5	590	< 100	1.89	4.1	1.7	0.17	0.09	1.98	4.20	0.54	2.29	0.50
S10	11	58	5.0	3.2	0.06	< 0.1	1.7	< 0.01	< 0.2	0.150	< 0.5	430	< 100	2.04	4.9	1.5	0.12	0.07	2.35	5.10	0.64	2.59	0.55
S11	14	79	4.3	0.6	0.05	< 0.1	3.0	< 0.01	< 0.2	0.601	< 0.5	70	< 100	5.67	3.8	0.5	0.10	0.06	7.48	14.8	1.90	7.81	1.46
S12	25	326	6.8	1.0	0.07	< 0.1	14.6	< 0.01	< 0.2	0.628	< 0.5	90	< 100	4.09	4.6	0.6	0.16	0.05	4.94	10.0	1.24	5.07	1.12
S13	15	148	5.4	3.0	< 0.05	< 0.1	1.6	< 0.01	< 0.2	0.161	< 0.5	510	< 100	2.69	3.8	1.9	0.15	0.07	3.42	6.97	0.86	3.53	0.74
S14	6	120	2.0	0.3	< 0.05	< 0.1	1.9	< 0.01	< 0.2	0.356	< 0.5	100	< 100	3.79	1.9	0.5	0.07	0.03	3.60	7.50	1.00	4.10	0.88
S15	28	136	9.1	< 0.3	0.05	< 0.1	7.8	< 0.01	< 0.2	0.500	< 0.5	20	< 100	7.08	6.3	0.2	0.19	0.03	8.50	19.3	2.42	9.86	2.00
S16	20	91	5.0	0.5	0.05	< 0.1	9.4	< 0.01	< 0.2	0.666	< 0.5	130	< 100	2.99	4.7	0.4	0.16	0.04	4.82	9.17	1.15	4.39	0.88
S17	20	114	8.2	0.3	< 0.05	< 0.1	13.0	< 0.01	< 0.2	0.604	< 0.5	80	< 100	4.37	10.3	0.3	0.30	0.02	5.34	10.7	1.32	5.24	1.09
S18	20	170	3.4	1.2	0.13	< 0.1	2.0	< 0.01	< 0.2	0.194	< 0.5	310	< 100	4.71	4.2	1.1	0.15	0.07	8.58	11.4	2.39	9.76	1.83
S19	34	24	4.0	< 0.3	0.07	< 0.1	1.0	< 0.01	< 0.2	0.393	< 0.5	50	< 100	4.55	1.9	0.6	0.07	0.06	4.64	7.88	1.65	7.14	1.39
S20	17	31	4.5	< 0.3	< 0.05	< 0.1	2.9	< 0.01	< 0.2	0.595	< 0.5	70	< 100	3.17	2.2	0.3	0.08	0.05	3.51	7.92	1.03	4.17	0.90
S21	54	772	8.6	0.7	< 0.05	< 0.1	6.7	< 0.01	< 0.2	1.61	< 0.5	20	< 100	13.1	4.6	0.2	0.12	0.05	12.9	30.5	4.21	17.6	3.61
S22	10	195	8.1	3.2	0.07	< 0.1	1.4	< 0.01	0.2	0.579	< 0.5	570	< 100	1.48	2.7	1.2	0.13	0.07	1.50	3.15	0.36	1.57	0.31
S23	8	79	1.9	0.7	< 0.05	< 0.1	0.9	< 0.01	< 0.2	0.513	< 0.5	270	< 100	2.54	1.8	0.9	0.08	0.06	3.37	7.59	1.00	4.44	0.93
S24	15	108	6.0	2.6	< 0.05	< 0.1	2.7	< 0.01	< 0.2	0.287	< 0.5	280	< 100	2.09	5.0	0.9	0.19	0.06	2.16	4.52	0.58	2.37	0.53
S25	12	59	6.5	4.5	0.09	< 0.1	4.7	< 0.01	0.3	0.537	< 0.5	690	< 100	1.52	2.2	1.5	0.11	0.06	1.61	3.41	0.37	1.58	0.36
S26	18	98	7.6	2.1	< 0.05	< 0.1	3.5	< 0.01	0.3	0.189	< 0.5	740	< 100	2.00	2.1	1.6	0.14	0.06	1.78	3.87	0.48	2.05	0.44
S26A	16	125	5.0	2.8	0.05	< 0.1	2.6	< 0.01	< 0.2	0.186	< 0.5	330	< 100	2.01	5.2	1.1	0.17	0.05	2.17	4.31	0.54	2.19	0.48
S27	13	49	2.4	0.6	< 0.05	< 0.1	1.9	< 0.01	< 0.2	0.084	< 0.5	240	< 100	1.85	1.5	0.7	0.09	0.05	2.29	5.10	0.66	2.71	0.53
S28	11	62	2.3	0.5	< 0.05	< 0.1	1.6	< 0.01	< 0.2	0.081	< 0.5	280	< 100	1.30	0.6	0.8	0.04	0.07	1.82	2.98	0.43	1.73	0.31
S29	17	157	8.1	2.7	< 0.05	< 0.1	2.2	< 0.01	< 0.2	0.086	< 0.5	370	< 100	2.66	5.8	1.0	0.21	0.05	2.94	6.59	0.85	3.31	0.72
S30	19	60	4.4	2.3	0.13	< 0.1	1.3	< 0.01	0.4	0.203	< 0.5	630	< 100	1.35	4.0	2.0	0.21	0.06	1.21	2.40	0.30	1.28	0.31
S31	35	122	7.0	2.1	0.12	< 0.1	4.8	< 0.01	< 0.2	1.03	< 0.5	120	< 100	5.71	7.1	0.5	0.24	0.02	6.04	13.9	1.71	7.10	1.38
S32	39	102	6.3	0.4	0.07	< 0.1	3.2	< 0.01	< 0.2	1.23	< 0.5	20	< 100	11.3	10.4	< 0.1	0.30	< 0.02	19.9	46.2	5.15	20.5	3.96
S33	13	402	5.3	0.9	0.07	< 0.1	2.9	< 0.01	< 0.2	0.651	< 0.5	160	< 100	3.04	1.8	0.4	0.08	0.04	4.58	10.7	1.12	4.53	0.84
S34	14	101	8.6	< 0.3	0.07	< 0.1	12.3	< 0.01	< 0.2	0.605	< 0.5	140	< 100	3.09	3.4	0.5	0.15	0.05	4.55	11.3	1.16	4.73	1.00
S35	13	107	14.1	< 0.3	0.07	< 0.1	10.7	< 0.01	< 0.2	1.09	< 0.5	60	< 100	1.95	3.1	0.2	0.10	0.03	3.05	4.94	0.78	3.06	0.70
S36	31	134	4.0	1.1	0.09	< 0.1	1.9	< 0.01	< 0.2	0.627	< 0.5	230	< 100	6.28	4.0	1.0	0.13	0.04	11.1	20.2	2.72	10.5	1.93
S37	32	166	3.9	1.9	0.07	< 0.1	2.3	< 0.01	< 0.2	0.444	< 0.5	380	< 100	2.67	2.6	0.8	0.12	0.03	4.35	9.74	1.22	5.06	0.92
S38	9	89	4.8	1.5	0.08	< 0.1	1.6	< 0.01	< 0.2	0.281	< 0.5	370	< 100	1.63	2.6	1.1	0.11	0.04	2.35	4.41	0.55	2.14	0.39
S39	21	93	3.9	2.6	0.14	< 0.1	2.0	< 0.01	< 0.2	0.226	< 0.5	480	< 100	1.95	3.1	1.0	0.09	0.05	3.54	6.28	0.79	3.04	0.57
S40	39	62	4.0	0.9	0.14	< 0.1	2.4	< 0.01	< 0.2	0.416	< 0.5	160	< 100	19.7	13.3	1.2	0.37	0.06	34.2	67.2	10.0	41.4	7.61

Analyte Symbol	Cu	Zn	Pb	Ga	Ge	Ag	Cd	In	Sn	Tl	Bi	Ti	Cr	Y	Zr	Nb	Hf	Ta	La	Ce	Pr	Nd	Sm
Unit Symbol	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Lower Limit	1	5	0.1	0.3	0.05	0.1	0.1	0.01	0.2	0.005	0.5	10	100	0.05	0.1	0.1	0.01	0.02	0.01	0.01	0.01	0.01	0.01
Method Code	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
S41	55	119	2.3	< 0.3	< 0.05	< 0.1	0.9	< 0.01	< 0.2	1.73	< 0.5	20	< 100	18.3	12.3	0.2	0.37	0.05	19.9	18.2	5.58	22.8	4.27
S42	35	30	4.8	0.4	0.11	< 0.1	0.9	< 0.01	< 0.2	0.242	< 0.5	80	< 100	5.06	4.7	0.4	0.14	0.06	3.63	4.55	1.11	4.71	0.97
S43	34	35	7.7	0.3	< 0.05	< 0.1	1.0	< 0.01	< 0.2	0.182	< 0.5	50	< 100	4.93	4.0	0.3	0.14	0.05	3.42	4.20	1.00	4.32	0.94
S45	7	78	9.9	1.2	< 0.05	< 0.1	1.0	< 0.01	0.2	0.257	< 0.5	480	< 100	4.29	5.4	1.5	0.19	0.06	7.21	10.5	1.28	4.60	1.05
S46	75	174	4.1	1.5	0.17	< 0.1	0.7	< 0.01	0.3	1.32	< 0.5	240	< 100	29.3	13.3	1.3	0.41	0.05	29.8	76.9	8.49	33.5	7.00
S47	30	129	17.4	0.7	0.12	< 0.1	1.3	< 0.01	< 0.2	0.227	< 0.5	60	< 100	29.4	16.7	0.3	0.48	0.03	25.5	50.9	6.70	26.4	5.53
S48	41	89	5.8	2.4	0.12	< 0.1	2.3	< 0.01	< 0.2	0.343	< 0.5	270	< 100	3.91	5.8	0.5	0.18	0.03	3.90	8.33	1.00	4.29	0.92
S49	26	102	8.1	4.7	0.21	< 0.1	2.3	0.02	0.6	0.188	< 0.5	1100	< 100	3.38	5.7	2.0	0.18	0.09	5.09	6.63	0.88	3.52	0.78
S50	38	129	4.2	5.1	0.12	< 0.1	4.2	0.12	< 0.2	0.355	0.7	820	< 100	3.76	8.2	1.9	0.20	0.07	3.96	7.98	1.01	3.99	0.90
S51	28	153	14.2	2.0	0.20	< 0.1	2.1	0.05	0.3	0.261	< 0.5	550	< 100	4.36	4.9	2.1	0.17	0.08	8.06	14.8	2.00	7.59	1.45
S52	28	142	11.2	3.0	0.12	< 0.1	2.8	0.02	0.2	0.347	< 0.5	640	< 100	3.96	4.1	1.6	0.13	0.06	6.78	12.4	1.68	6.62	1.24
S53	42	474	6.5	0.5	< 0.05	< 0.1	5.2	0.02	< 0.2	0.982	< 0.5	30	< 100	8.48	6.4	0.2	0.18	0.03	8.04	18.2	2.50	10.7	2.42
S54	36	255	13.0	0.8	0.13	< 0.1	6.2	< 0.01	< 0.2	0.907	< 0.5	120	< 100	2.32	8.3	0.4	0.27	0.02	3.16	6.54	0.81	3.37	0.67
S55	17	277	33.0	2.5	0.08	< 0.1	2.8	0.01	0.3	0.274	< 0.5	470	< 100	1.15	4.7	2.0	0.18	0.08	1.71	3.31	0.39	1.50	0.31
S56	13	289	13.9	3.3	0.07	< 0.1	10.6	< 0.01	< 0.2	0.523	< 0.5	280	< 100	3.27	5.8	1.0	0.21	0.07	5.25	10.0	1.17	4.60	0.94
S57	25	277	10.5	2.8	0.08	< 0.1	18.7	< 0.01	< 0.2	1.57	< 0.5	100	< 100	4.35	8.7	0.3	0.26	< 0.02	5.11	11.4	1.30	5.02	1.03
S58B	58	257	16.8	2.4	< 0.05	< 0.1	28.8	< 0.01	< 0.2	3.52	< 0.5	20	< 100	11.1	9.9	0.1	0.26	0.03	13.3	38.4	3.34	13.4	3.03
S59	23	175	48.5	2.1	0.23	< 0.1	1.9	< 0.01	0.3	1.92	< 0.5	130	< 100	4.43	15.1	0.7	0.26	0.04	5.84	7.72	1.49	5.89	1.11
111	50	352	22.2	3.3	0.11	< 0.1	3.4	0.01	0.6	1.16	< 0.5	920	< 100	8.31	9.5	1.1	0.14	0.05	11.9	21.9	2.84	11.2	2.23
112	108	484	9.9	1.5	0.17	< 0.1	2.3	0.02	< 0.2	2.18	< 0.5	280	< 100	23.1	20.4	0.7	0.27	0.02	36.8	54.2	9.94	40.2	7.49
115	22	130	6.8	3.0	0.09	< 0.1	1.8	< 0.01	0.4	0.443	< 0.5	660	< 100	2.83	19.8	2.2	0.17	0.09	5.25	7.65	1.15	4.30	0.80
117	73	321	14.1	6.8	0.11	< 0.1	21.2	0.02	0.5	1.02	< 0.5	880	< 100	4.15	14.7	1.3	0.19	0.07	5.65	10.5	1.54	5.33	1.12
118	54	362	9.1	2.9	0.15	< 0.1	5.5	< 0.01	0.3	0.482	< 0.5	580	< 100	5.44	16.2	1.4	0.21	0.06	10.7	21.4	2.69	10.6	1.94
124	57	374	11.4	3.1	0.13	< 0.1	5.7	< 0.01	0.4	0.479	< 0.5	610	< 100	5.80	17.0	1.5	0.19	0.07	11.9	24.3	2.90	11.0	2.02

Analyte Symbol	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Li	Be	Sc	Mn	Rb	Sr	Cs	Ba	Ru	Pd	Pt
Unit Symbol	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Lower Limit	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.1	10	0.4	0.1	0.1	0.01	0.5	0.5	0.5	0.5
Method Code	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
S01	0.15	0.41	0.05	0.32	0.06	0.18	0.02	0.15	0.03	15.5	0.5	< 10	207	47.6	82.4	0.73	198	< 0.5	< 0.5	< 0.5
S02	1.15	3.76	0.53	2.83	0.49	1.25	0.15	0.90	0.13	8.1	0.5	< 10	425	91.2	91.5	9.47	179	< 0.5	< 0.5	< 0.5
S03	0.09	0.38	0.04	0.21	0.03	0.10	0.01	0.06	0.02	3.2	0.2	< 10	422	32.3	231	1.85	171	< 0.5	< 0.5	< 0.5
S04	0.64	2.40	0.31	1.57	0.28	0.73	0.10	0.56	0.08	29.2	1.2	10	215	141	146	5.72	740	< 0.5	< 0.5	< 0.5
S05	0.51	1.83	0.21	1.15	0.18	0.46	0.06	0.34	0.06	2.4	0.5	< 10	98.2	27.3	226	0.63	278	< 0.5	< 0.5	< 0.5
S06	0.44	1.35	0.18	1.13	0.25	0.69	0.09	0.61	0.09	4.4	0.9	< 10	2560	56.2	53.2	0.60	232	< 0.5	< 0.5	< 0.5
S07	0.37	1.12	0.14	0.88	0.19	0.56	0.09	0.53	0.09	5.1	0.9	< 10	1510	48.2	91.8	0.51	264	< 0.5	< 0.5	< 0.5
S08	0.39	1.73	0.22	1.20	0.22	0.55	0.07	0.44	0.06	3.0	3.1	< 10	1840	70.4	93.5	3.05	373	< 0.5	< 0.5	< 0.5
S09	0.11	0.45	0.06	0.40	0.07	0.21	0.03	0.16	0.03	3.0	0.5	< 10	331	27.3	22.5	0.33	90.6	< 0.5	< 0.5	< 0.5
S10	0.14	0.51	0.06	0.40	0.07	0.20	0.03	0.18	0.03	3.0	0.4	< 10	49.5	13.6	35.6	0.22	90.0	< 0.5	< 0.5	< 0.5
S11	0.37	1.31	0.17	0.89	0.17	0.48	0.07	0.42	0.07	2.5	1.9	< 10	371	67.0	116	1.99	170	< 0.5	< 0.5	< 0.5
S12	0.35	1.00	0.14	0.80	0.14	0.39	0.04	0.28	0.04	2.8	1.9	< 10	983	80.0	270	1.43	412	< 0.5	< 0.5	< 0.5
S13	0.22	0.75	0.10	0.55	0.09	0.27	0.03	0.20	0.02	4.4	0.5	< 10	310	34.3	61.1	0.65	81.3	< 0.5	< 0.5	< 0.5
S14	0.22	0.80	0.11	0.61	0.12	0.33	0.05	0.24	0.04	6.3	1.5	< 10	220	49.7	215	2.31	259	< 0.5	< 0.5	< 0.5
S15	0.55	1.63	0.23	1.32	0.25	0.69	0.09	0.54	0.08	3.8	1.4	< 10	152	58.4	44.4	3.60	320	< 0.5	< 0.5	< 0.5
S16	0.25	0.78	0.10	0.57	0.10	0.28	0.04	0.26	0.03	3.1	1.0	< 10	180	68.8	46.5	2.91	180	< 0.5	< 0.5	< 0.5
S17	0.33	1.03	0.14	0.84	0.15	0.41	0.06	0.33	0.05	3.0	1.5	< 10	249	66.9	53.8	0.99	247	< 0.5	< 0.5	< 0.5
S18	0.47	1.43	0.16	0.85	0.15	0.41	0.05	0.37	0.04	4.7	0.6	< 10	278	44.2	337	0.63	301	< 0.5	< 0.5	< 0.5
S19	0.38	1.21	0.14	0.75	0.14	0.39	0.05	0.31	0.04	4.1	0.5	< 10	853	28.9	278	1.91	143	< 0.5	< 0.5	< 0.5
S20	0.25	0.85	0.10	0.56	0.10	0.29	0.04	0.21	0.03	6.5	1.5	< 10	237	62.1	156	1.54	364	< 0.5	< 0.5	< 0.5
S21	0.97	3.00	0.41	2.21	0.43	1.20	0.17	1.04	0.16	9.7	2.1	< 10	11100	106	90.9	3.67	599	< 0.5	< 0.5	< 0.5
S22	0.10	0.33	0.04	0.28	0.04	0.15	0.02	0.11	0.03	4.5	0.4	< 10	203	17.9	29.4	0.46	92.0	< 0.5	< 0.5	< 0.5
S23	0.29	0.83	0.10	0.56	0.09	0.22	0.03	0.16	0.03	6.3	0.8	< 10	224	18.1	128	0.83	139	< 0.5	< 0.5	< 0.5
S24	0.15	0.46	0.07	0.39	0.07	0.20	0.03	0.20	0.03	3.7	0.3	< 10	435	28.2	65.7	0.13	115	< 0.5	< 0.5	< 0.5
S25	0.11	0.30	0.04	0.27	0.05	0.15	0.02	0.13	0.03	7.7	0.4	< 10	177	25.0	94.7	0.61	203	< 0.5	< 0.5	< 0.5
S26	0.12	0.39	0.05	0.38	0.07	0.23	0.03	0.18	0.03	3.2	0.3	< 10	179	41.4	50.6	0.35	135	< 0.5	< 0.5	< 0.5
S26A	0.15	0.47	0.06	0.38	0.07	0.21	0.03	0.18	0.03	3.7	0.4	< 10	432	26.7	64.1	0.13	114	< 0.5	< 0.5	< 0.5
S27	0.14	0.45	0.06	0.31	0.06	0.19	0.02	0.14	0.03	2.5	0.6	< 10	83.5	20.3	128	0.33	176	< 0.5	< 0.5	< 0.5
S28	0.10	0.31	0.03	0.21	0.04	0.13	0.02	0.10	0.05	1.7	0.4	< 10	76.9	29.5	158	0.33	159	< 0.5	< 0.5	< 0.5
S29	0.21	0.61	0.09	0.47	0.10	0.27	0.04	0.24	0.05	3.2	0.8	< 10	264	22.4	23.9	0.21	142	< 0.5	< 0.5	< 0.5
S30	0.09	0.33	0.05	0.26	0.06	0.15	0.02	0.14	0.04	4.9	< 0.1	< 10	129	53.7	18.3	1.99	66.4	< 0.5	< 0.5	< 0.5
S31	0.40	1.24	0.16	0.97	0.19	0.53	0.07	0.47	0.07	4.2	0.9	< 10	1250	74.1	87.8	2.80	382	< 0.5	< 0.5	< 0.5
S32	1.07	3.44	0.46	2.44	0.45	1.08	0.14	0.77	0.12	4.2	1.2	< 10	1080	71.5	37.1	5.53	306	< 0.5	< 0.5	< 0.5
S33	0.21	0.71	0.09	0.53	0.09	0.26	0.03	0.20	0.04	3.2	1.0	< 10	1200	107	282	1.47	370	< 0.5	< 0.5	< 0.5
S34	0.27	0.88	0.11	0.64	0.12	0.28	0.04	0.19	0.08	4.2	1.4	< 10	309	43.3	73.8	1.40	210	< 0.5	< 0.5	< 0.5
S35	0.18	0.58	0.07	0.43	0.07	0.18	0.03	0.13	0.03	4.8	1.3	< 10	391	66.4	129	3.02	402	< 0.5	< 0.5	< 0.5
S36	0.43	1.57	0.21	1.10	0.20	0.53	0.07	0.38	0.09	7.2	1.5	< 10	188	79.4	152	12.5	336	< 0.5	< 0.5	< 0.5
S37	0.20	0.76	0.09	0.51	0.09	0.24	0.03	0.18	0.05	9.8	0.8	< 10	134	74.2	62.0	3.71	227	< 0.5	< 0.5	< 0.5
S38	0.10	0.33	0.05	0.30	0.05	0.16	0.02	0.11	0.06	3.3	0.9	< 10	237	33.4	72.3	0.44	220	< 0.5	< 0.5	< 0.5
S39	0.14	0.53	0.06	0.36	0.06	0.17	0.02	0.15	0.03	2.5	0.7	< 10	126	48.0	45.5	1.48	162	< 0.5	< 0.5	< 0.5
S40	1.83	6.32	0.79	3.90	0.66	1.64	0.20	1.16	0.16	3.6	1.2	< 10	540	60.9	223	1.35	262	< 0.5	< 0.5	< 0.5

Analyte Symbol	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Li	Be	Sc	Mn	Rb	Sr	Cs	Ba	Ru	Pd	Pt
Unit Symbol	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Lower Limit	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.1	10	0.4	0.1	0.1	0.01	0.5	0.5	0.5	0.5
Method Code	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
S41	1.22	3.97	0.48	2.57	0.50	1.39	0.17	1.00	0.23	2.7	0.6	< 10	1260	46.5	275	2.50	104	< 0.5	< 0.5	< 0.5
S42	0.35	1.02	0.12	0.70	0.15	0.41	0.06	0.38	0.10	1.2	0.1	< 10	567	6.6	280	0.28	130	< 0.5	< 0.5	< 0.5
S43	0.33	0.89	0.11	0.65	0.13	0.40	0.06	0.38	0.08	1.1	0.1	< 10	522	6.7	268	0.28	125	< 0.5	< 0.5	< 0.5
S45	0.20	0.83	0.12	0.68	0.12	0.38	0.05	0.27	0.09	3.6	0.3	< 10	1240	14.9	33.7	0.31	93.3	< 0.5	< 0.5	< 0.5
S46	2.36	7.53	1.07	5.99	1.12	3.01	0.41	2.63	0.41	22.2	0.4	< 10	2490	87.5	81.9	8.76	119	< 0.5	< 0.5	< 0.5
S47	1.35	5.20	0.74	4.21	0.83	2.40	0.32	2.10	0.34	1.8	0.6	< 10	5290	9.7	50.5	0.17	118	< 0.5	< 0.5	< 0.5
S48	0.28	0.91	0.13	0.76	0.14	0.39	0.05	0.34	0.08	4.0	0.5	< 10	134	33.4	73.5	1.46	197	< 0.5	< 0.5	< 0.5
S49	0.23	0.73	0.10	0.64	0.12	0.37	0.05	0.28	0.06	3.1	0.5	< 10	161	42.5	38.2	0.71	105	< 0.5	< 0.5	< 0.5
S50	0.27	0.81	0.14	0.76	0.14	0.38	0.05	0.35	0.07	11.8	0.6	< 10	176	31.8	29.0	0.75	175	< 0.5	< 0.5	< 0.5
S51	0.30	1.12	0.15	0.73	0.15	0.37	0.05	0.29	0.09	6.4	0.5	< 10	263	16.3	131	0.37	177	< 0.5	< 0.5	< 0.5
S52	0.29	0.95	0.12	0.67	0.13	0.36	0.05	0.28	0.07	4.1	0.7	< 10	126	40.8	80.1	1.12	206	< 0.5	< 0.5	< 0.5
S53	0.73	2.29	0.33	1.73	0.31	0.81	0.11	0.65	0.10	8.4	1.5	< 10	4490	94.4	114	3.30	350	< 0.5	< 0.5	< 0.5
S54	0.19	0.63	0.07	0.45	0.08	0.23	0.03	0.23	0.05	2.9	0.8	< 10	3070	55.5	101	0.34	381	< 0.5	< 0.5	< 0.5
S55	0.08	0.33	0.04	0.25	0.05	0.12	0.02	0.10	0.03	3.7	0.1	< 10	218	11.1	52.3	0.08	126	< 0.5	< 0.5	< 0.5
S56	0.28	0.82	0.12	0.70	0.12	0.32	0.04	0.24	0.08	2.6	0.9	< 10	459	50.6	97.8	0.40	261	< 0.5	< 0.5	< 0.5
S57	0.29	0.94	0.13	0.78	0.15	0.41	0.06	0.37	0.07	2.1	1.1	< 10	44100	124	64.4	7.06	274	< 0.5	< 0.5	< 0.5
S58B	0.96	2.80	0.37	2.02	0.37	0.92	0.12	0.78	0.15	10.6	2.3	< 10	31400	230	37.3	11.8	245	< 0.5	< 0.5	< 0.5
S59	0.30	0.88	0.11	0.61	0.12	0.36	0.05	0.35	0.10	7.4	1.1	< 10	2880	64.8	142	1.09	551	< 0.5	< 0.5	< 0.5
111	0.59	2.00	0.26	1.39	0.27	0.72	0.09	0.52	0.14	4.2	0.4	< 10	388	58.3	123	0.52	235	< 0.5	< 0.5	< 0.5
112	1.84	6.23	0.79	4.03	0.73	1.89	0.25	1.41	0.30	14.9	0.5	10	11100	37.2	1040	5.10	451	< 0.5	< 0.5	< 0.5
115	0.21	0.64	0.09	0.48	0.09	0.24	0.03	0.27	0.18	5.8	0.8	< 10	80.2	50.8	92.3	2.61	250	< 0.5	< 0.5	< 0.5
117	0.39	0.98	0.13	0.73	0.14	0.36	0.05	0.32	0.18	10.3	1.6	< 10	1380	99.6	219	1.32	617	< 0.5	< 0.5	< 0.5
118	0.40	1.54	0.19	1.05	0.18	0.47	0.06	0.37	0.18	4.7	1.1	< 10	439	58.9	99.8	1.00	390	< 0.5	< 0.5	< 0.5
124	0.42	1.59	0.21	1.10	0.20	0.54	0.07	0.38	0.19	4.7	1.0	< 10	444	63.0	104	1.11	422	< 0.5	< 0.5	< 0.5

Analyte Symbol	Al	Ca	Fe	K	Mg	Na	Cl	Br	I	V	As	Se	Mo	Sb	Te	W	Re	Au	Hg	Th	U	Co	Ni
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Lower Limit	0.5	5	1	5	2	5	1000	1	1	0.1	0.1	1	0.1	0.01	0.5	0.1	0.005	0.005	0.1	0.01	0.01	0.2	1
Method Code	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
TILL-1 Meas			6					438		78.5	17.6		4.5	50.4				0.574	0.2	1.85	3.91	52.3	15
TILL-1 Cert			48100.00					6400.0		99000	18000		2000	7800.0				13	90.0	5600.0	2200.0	18000	24000
TILL-1 Meas			6					442		77.6	17.1		4.4	50.1				0.655	0.2	1.83	3.96	50.1	14
TILL-1 Cert			48100.00					6400.0		99000	18000		2000	7800.0				13	90.0	5600.0	2200.0	18000	24000
TILL-1 Meas			5					441		71.1	16.6		4.4	48.1				0.421	0.1	1.75	3.80	45.8	14
TILL-1 Cert			48100.00					6400.0		99000	18000		2000	7800.0				13	90.0	5600.0	2200.0	18000	24000
TILL-1 Meas			5					437		72.7	16.5		4.5	47.5				0.466	0.1	1.62	3.73	45.7	14
TILL-1 Cert			48100.00					6400.0		99000	18000		2000	7800.0				13	90.0	5600.0	2200.0	18000	24000
TILL-2 Meas			13					1120		64.9	24.0		35.6	1.58		1.1		0.226	0.2	11.0	13.7	24.5	23
TILL-2 Cert			38400.00					12200.0		77000	26000		14000	800.0		5000		2	70.0	18400.0	5700.0	15000	32000
TILL-2 Meas			10					1130		59.9	20.0		25.8	1.59		0.7		0.226	0.2	8.11	13.6	25.3	21
TILL-2 Cert			38400.00					12200.0		77000	26000		14000	800.0		5000		2	70.0	18400.0	5700.0	15000	32000
TILL-2 Meas			9					1130		55.7	19.8		25.2	1.45		0.8		0.250	0.2	8.01	13.0	20.9	18
TILL-2 Cert			38400.00					12200.0		77000	26000		14000	800.0		5000		2	70.0	18400.0	5700.0	15000	32000
TILL-2 Meas			9					1140		54.9	19.4		24.4	1.41		0.7		0.222	0.2	7.57	13.0	21.3	18
TILL-2 Cert			38400.00					12200.0		77000	26000		14000	800.0		5000		2	70.0	18400.0	5700.0	15000	32000
S10 Orig	10.5	< 5	4	5	< 2	< 5	1000	66	14	63.4	13.0	3	0.8	0.39	< 0.5	< 0.1	0.035	< 0.005	< 0.1	0.65	1.03	3.5	73
S10 Dup	10.7	< 5	4	5	< 2	< 5	1000	68	14	63.5	13.0	3	0.7	0.35	< 0.5	< 0.1	0.037	< 0.005	< 0.1	0.60	1.07	3.5	76
S21 Orig	18.1	12	< 1	18	8	< 5	2000	585	60	1.4	5.2	16	0.1	0.84	< 0.5	< 0.1	0.131	0.093	< 0.1	0.44	4.58	216	107
S21 Dup	25.5	12	1	18	8	< 5	3000	599	62	1.8	5.1	16	0.2	0.82	< 0.5	< 0.1	0.135	0.084	< 0.1	0.58	5.74	236	109
S27 Orig	6.3	18	2	5	4	< 5	< 1000	108	18	15.0	4.8	3	0.5	0.66	< 0.5	< 0.1	0.067	0.150	0.2	0.30	1.35	19.2	26
S27 Dup	6.3	19	2	5	4	< 5	< 1000	109	19	14.4	5.0	4	0.5	0.60	< 0.5	< 0.1	0.064	0.140	0.2	0.33	1.48	19.5	27
S56 Orig	33.5	7	11	16	5	< 5	2000	549	70	34.1	18.5	14	1.0	0.76	< 0.5	< 0.1	0.057	0.146	0.2	1.06	2.14	9.5	99
S56 Dup	35.6	8	12	16	5	< 5	2000	541	70	35.0	17.9	13	0.9	0.74	< 0.5	< 0.1	0.057	0.130	0.1	1.10	2.20	9.6	100
124 Orig	23.3	10	8	15	8	< 5	1000	225	36	64.6	24.0	10	1.3	1.45	< 0.5	< 0.1	0.045	0.118	0.2	2.04	2.79	54.3	252
124 Dup	23.4	9	8	15	8	< 5	1000	218	35	62.8	23.4	9	1.4	1.39	< 0.5	< 0.1	0.047	0.133	0.2	2.00	2.64	53.8	242
Method Blank	< 0.5	< 5	< 1	< 5	< 2	< 5	< 1000	< 1	< 1	0.8	< 0.1	< 1	< 0.1	0.05	< 0.5	0.1	< 0.005	< 0.005	< 0.1	< 0.01	< 0.01	< 0.2	< 1

Analyte Symbol	Cu	Zn	Pb	Ga	Ge	Ag	Cd	In	Sn	Tl	Bi	Ti	Cr	Y	Zr	Nb	Hf	Ta	La	Ce	Pr	Nd	Sm
Unit Symbol	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Lower Limit	1	5	0.1	0.3	0.05	0.1	0.1	0.01	0.2	0.005	0.5	10	100	0.05	0.1	0.1	0.01	0.02	0.01	0.01	0.01	0.01	0.01
Method Code	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
TILL-1 Meas	211	58	26.0									340	< 100	24.7	9.3	1.2	0.31	0.09	25.3	29.9		27.7	5.83
TILL-1 Cert	47000	98000	22000									5990000	65000	38000	502000	10000	13000	700.0	28000	71000		26000	5900.0
TILL-1 Meas	205	56	24.0									350	< 100	22.9	8.8	1.3	0.28	0.09	23.5	28.1		25.9	5.30
TILL-1 Cert	47000	98000	22000									5990000	65000	38000	502000	10000	13000	700.0	28000	71000		26000	5900.0
TILL-1 Meas	202	44	23.0									300	< 100	21.8	7.8	1.2	0.24	0.08	22.6	26.3		25.1	5.17
TILL-1 Cert	47000	98000	22000									5990000	65000	38000	502000	10000	13000	700.0	28000	71000		26000	5900.0
TILL-1 Meas	205	50	22.1									310	< 100	20.9	8.0	1.5	0.26	0.09	21.2	25.6		24.2	4.81
TILL-1 Cert	47000	98000	22000									5990000	65000	38000	502000	10000	13000	700.0	28000	71000		26000	5900.0
TILL-2 Meas	233	77	22.5									1180	< 100	45.6	45.8	5.3	1.31	0.29	42.6	100		44.6	9.52
TILL-2 Cert	150000	130000	31000									5300000	74000	40000	390000	20000	11000	1900.0	44000	98000		36000	7400.0
TILL-2 Meas	239	75	23.0									830	< 100	47.7	37.8	3.7	1.21	0.18	46.3	96.9		45.8	9.65
TILL-2 Cert	150000	130000	31000									5300000	74000	40000	390000	20000	11000	1900.0	44000	98000		36000	7400.0
TILL-2 Meas	220	65	20.5									820	< 100	42.3	36.2	3.8	1.12	0.19	40.3	88.9		42.2	9.07
TILL-2 Cert	150000	130000	31000									5300000	74000	40000	390000	20000	11000	1900.0	44000	98000		36000	7400.0
TILL-2 Meas	221	64	21.4									780	< 100	43.0	33.4	3.6	1.16	0.18	41.0	89.1		42.4	9.21
TILL-2 Cert	150000	130000	31000									5300000	74000	40000	390000	20000	11000	1900.0	44000	98000		36000	7400.0
S10 Orig	9	56	4.9	3.3	0.07	< 0.1	1.7	0.01	0.3	0.178	< 0.5	440	< 100	2.04	2.9	1.6	0.12	0.07	2.30	5.10	0.63	2.62	0.54
S10 Dup	12	60	5.0	3.2	0.05	< 0.1	1.7	< 0.01	< 0.2	0.122	< 0.5	420	< 100	2.03	7.0	1.4	0.13	0.07	2.39	5.11	0.66	2.56	0.55
S21 Orig	48	762	8.1	0.6	< 0.05	< 0.1	6.6	< 0.01	< 0.2	1.55	< 0.5	20	< 100	11.2	4.0	0.2	0.12	0.05	10.3	25.8	3.63	15.4	3.16
S21 Dup	60	782	9.0	0.9	< 0.05	< 0.1	6.8	< 0.01	< 0.2	1.68	< 0.5	20	< 100	14.9	5.1	0.2	0.13	0.05	15.4	35.3	4.79	19.9	4.06
S27 Orig	13	49	2.5	0.7	0.07	< 0.1	1.8	< 0.01	< 0.2	0.082	< 0.5	240	< 100	1.81	1.7	0.7	0.10	0.05	2.29	5.02	0.66	2.70	0.50
S27 Dup	14	50	2.3	0.6	< 0.05	< 0.1	1.9	< 0.01	< 0.2	0.086	< 0.5	240	< 100	1.88	1.2	0.7	0.07	0.04	2.29	5.17	0.67	2.73	0.56
S56 Orig	13	294	14.6	3.1	0.06	< 0.1	10.7	< 0.01	< 0.2	0.573	< 0.5	280	< 100	3.22	5.7	1.1	0.20	0.07	5.22	9.98	1.18	4.53	0.92
S56 Dup	13	283	13.3	3.4	0.08	< 0.1	10.4	0.01	< 0.2	0.472	< 0.5	280	< 100	3.31	5.8	1.0	0.22	0.07	5.29	10.1	1.16	4.68	0.96
124 Orig	57	375	11.5	3.1	0.11	< 0.1	5.8	0.01	0.4	0.493	< 0.5	600	< 100	5.88	16.9	1.5	0.20	0.07	12.0	25.8	2.93	11.1	2.05
124 Dup	56	374	11.2	3.0	0.16	< 0.1	5.6	< 0.01	0.3	0.464	< 0.5	620	< 100	5.73	17.0	1.5	0.19	0.07	11.7	22.8	2.86	10.9	1.99
Method Blank	< 1	< 5	< 0.1	< 0.3	< 0.05	< 0.1	< 0.1	< 0.01	< 0.2	< 0.005	< 0.5	< 10	< 100	< 0.05	< 0.1	0.7	< 0.01	0.09	0.02	0.02	< 0.01	< 0.01	< 0.01

Analyte Symbol	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Li	Be	Sc	Mn	Rb	Sr	Cs	Ba	Ru	Pd	Pt
Unit Symbol	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb	ppb
Lower Limit	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.5	0.1	10	0.4	0.1	0.1	0.01	0.5	0.5	0.5	0.5
Method Code	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS	ENZ-MS
TILL-1 Meas	1.23		0.70			2.06		1.84	0.29	0.8	0.4	< 10	26600	36.1	333	0.24	656			
TILL-1 Cert	1300.0		1100.0			3600.0		3900.0	600.0	15000	2400.0	13000	142000	44000	291000	1000.0	702000			
TILL-1 Meas	1.11		0.66			1.96		1.78	0.30	0.7	0.4	< 10	26400	36.0	331	0.25	595			
TILL-1 Cert	1300.0		1100.0			3600.0		3900.0	600.0	15000	2400.0	13000	142000	44000	291000	1000.0	702000			
TILL-1 Meas	1.08		0.64			1.92		1.80	0.28	0.7	0.6	< 10	24100	34.7	303	0.22	568			
TILL-1 Cert	1300.0		1100.0			3600.0		3900.0	600.0	15000	2400.0	13000	142000	44000	291000	1000.0	702000			
TILL-1 Meas	1.05		0.63			1.87		1.69	0.29	0.9	0.5	< 10	24200	34.2	298	0.22	544			
TILL-1 Cert	1300.0		1100.0			3600.0		3900.0	600.0	15000	2400.0	13000	142000	44000	291000	1000.0	702000			
TILL-2 Meas	2.06		1.31			4.07		3.60	0.57	10.6	2.5	10	5900	185	659	4.79	1130			
TILL-2 Cert	1000.0		1200.0			3700.0		3700.0	600.0	47000	4000.0	12000	780000	143000	144000	12000	540000			
TILL-2 Meas	2.11		1.33			4.04		3.65	0.55	8.7	2.5	10	5900	182	674	4.12	1170			
TILL-2 Cert	1000.0		1200.0			3700.0		3700.0	600.0	47000	4000.0	12000	780000	143000	144000	12000	540000			
TILL-2 Meas	1.94		1.25			3.89		3.42	0.55	8.7	2.2	10	5150	170	592	4.16	998			
TILL-2 Cert	1000.0		1200.0			3700.0		3700.0	600.0	47000	4000.0	12000	780000	143000	144000	12000	540000			
TILL-2 Meas	1.95		1.28			3.95		3.55	0.53	8.8	2.6	10	5270	168	592	4.02	1030			
TILL-2 Cert	1000.0		1200.0			3700.0		3700.0	600.0	47000	4000.0	12000	780000	143000	144000	12000	540000			
S10 Orig	0.13	0.51	0.07	0.39	0.07	0.21	0.03	0.20	0.03	2.9	0.5	< 10	50.0	13.5	35.4	0.22	90.1	< 0.5	< 0.5	< 0.5
S10 Dup	0.14	0.52	0.06	0.40	0.08	0.20	0.03	0.16	0.03	3.1	0.4	< 10	49.0	13.8	35.8	0.22	89.9	< 0.5	< 0.5	< 0.5
S21 Orig	0.85	2.54	0.36	1.89	0.38	1.05	0.15	0.90	0.15	9.6	1.8	< 10	11000	105	90.0	3.65	588	< 0.5	< 0.5	< 0.5
S21 Dup	1.10	3.46	0.46	2.53	0.48	1.35	0.20	1.17	0.17	9.9	2.4	< 10	11300	106	91.8	3.69	609	< 0.5	< 0.5	< 0.5
S27 Orig	0.14	0.45	0.05	0.30	0.05	0.18	0.02	0.13	0.03	2.5	0.5	< 10	83.4	20.1	127	0.34	176	< 0.5	< 0.5	< 0.5
S27 Dup	0.15	0.46	0.06	0.32	0.07	0.20	0.02	0.14	0.03	2.5	0.6	< 10	83.5	20.4	130	0.32	176	< 0.5	< 0.5	< 0.5
S56 Orig	0.27	0.84	0.11	0.73	0.12	0.32	0.04	0.23	0.07	2.6	0.8	< 10	462	50.8	98.1	0.39	262	< 0.5	< 0.5	< 0.5
S56 Dup	0.29	0.79	0.12	0.66	0.12	0.33	0.04	0.25	0.10	2.6	1.0	< 10	457	50.5	97.6	0.40	261	< 0.5	< 0.5	< 0.5
124 Orig	0.44	1.63	0.21	1.11	0.20	0.54	0.07	0.38	0.18	4.7	1.1	< 10	444	63.3	104	1.10	426	< 0.5	< 0.5	< 0.5
124 Dup	0.40	1.55	0.21	1.08	0.20	0.54	0.07	0.37	0.19	4.7	0.9	< 10	445	62.6	103	1.13	418	< 0.5	< 0.5	< 0.5
Method Blank	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5	< 0.1	< 10	< 0.4	0.1	< 0.1	< 0.01	< 0.5	< 0.5	< 0.5	< 0.5

Quality Analysis ... *Innovative Technologies*

Date Submitted: 05-Dec-17
Invoice No.: A17-13784
Invoice Date: 19-Jan-18
Your Reference:

George Gale(NAMEX)
450 Bonner Ave
Winnipeg MB R2G 1C3
Canada

ATTN: George Gale

CERTIFICATE OF ANALYSIS

6 Pulp samples were submitted for analysis.

The following analytical package(s) were requested: Code UT-1-0.5g Aqua Regia ICP/MS

REPORT **A17-13784**

Notes:

Assays are recommended for values above the upper limit. The Au from AR-MS is only semi-quantitative. For accurate Au data, fire assay is recommended.

CERTIFIED BY:

Emmanuel Eseme , Ph.D.
Quality Control

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Analyte Symbol	Ti	S	P	Li	Be	B	Na	Mg	Al	K	Bi	Ca	Sc	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge
Unit Symbol	%	%	%	ppm	ppm	ppm	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.001	1	0.001	0.1	0.1	1	0.001	0.01	0.01	0.01	0.02	0.01	0.1	1	1	1	0.01	0.1	0.1	0.01	0.1	0.02	0.1
Method Code	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
015	0.152	8	0.101	24.7	0.1	2	0.166	1.93	1.79	0.30	0.10	0.73	12.3	126	117	616	9.96	49.1	101	98.4	405	11.4	< 0.1
026	0.368	< 1	0.118	55.4	1.1	8	0.041	1.14	3.92	0.81	0.17	0.92	15.9	230	3	3110	9.99	17.3	25.9	8.50	87.2	19.6	< 0.1
031	0.006	< 1	0.013	0.9	< 0.1	2	0.012	0.12	0.34	0.07	0.13	0.05	0.5	5	4	572	6.46	1.2	1.5	8.11	28.5	4.44	< 0.1
031B	0.016	< 1	0.019	0.6	< 0.1	2	0.016	0.18	0.41	0.03	0.18	0.38	0.1	6	3	3990	10.8	2.2	2.6	14.3	9.6	0.22	< 0.1
034	0.031	< 1	0.014	1.2	0.3	3	0.015	0.20	1.35	0.05	< 0.02	3.95	1.0	4	< 1	9080	13.7	1.3	2.3	3.20	12.0	7.41	< 0.1
081	0.195	5	0.180	35.6	1.0	7	0.229	3.01	2.72	0.68	0.26	1.21	14.2	124	158	746	5.24	25.5	53.4	124	83.1	14.6	< 0.1

Analyte Symbol	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Te	Cs	Ba	La	Ce	Cd	Pr	Nd	Sm	Se	Eu	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.5	0.01	0.1	0.1	0.01	0.002	0.02	0.05	0.02	0.02	0.02	0.5	0.5	0.01	0.01	0.1	0.02	0.1	0.1	0.1	0.1
Method Code	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
015	24.2	9.2	18.0	12.9	29.4	0.1	3.13	0.138	0.13	0.90	0.85	0.13	0.59	5.4	5.6	15.7	0.72	2.2	10.3	2.4	0.4	0.8	2.5
026	< 0.1	58.6	24.7	14.0	6.0	0.2	11.3	0.010	0.05	1.32	0.06	0.03	6.51	148	13.4	31.5	< 0.01	4.0	18.6	3.2	< 0.1	1.1	3.8
031	< 0.1	3.3	1.2	1.50	9.0	0.2	0.89	0.066	< 0.02	0.16	0.09	0.03	0.30	47.4	0.7	1.72	< 0.01	0.2	0.93	0.3	0.9	< 0.1	0.2
031B	< 0.1	1.2	10.8	5.37	5.9	0.1	0.59	0.073	< 0.02	< 0.05	0.06	0.14	0.31	119	1.0	2.18	< 0.01	0.3	1.12	0.2	0.2	0.2	0.5
034	< 0.1	3.9	124	17.9	12.6	0.2	1.82	< 0.002	< 0.02	0.71	0.03	0.03	0.79	31.5	17.5	34.8	0.05	4.3	20.2	3.1	< 0.1	0.7	3.6
081	157	27.9	53.2	14.5	8.5	0.3	1.19	0.096	0.07	1.04	0.07	0.03	4.44	9.9	51.3	107	0.04	13.4	57.4	8.2	1.5	1.7	6.1

Analyte Symbol	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Th	U	Hg
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppb
Lower Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.1	0.1	10
Method Code	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
015	0.4	2.7	0.6	1.5	0.2	1.3	0.2	0.7	< 0.05	< 0.1	0.003	3.9	1.11	2.53	0.7	0.2	50
026	0.6	3.3	0.7	1.7	0.2	1.4	0.2	< 0.1	< 0.05	0.1	0.002	0.5	0.27	7.53	2.2	0.5	< 10
031	< 0.1	0.2	< 0.1	0.2	< 0.1	0.2	< 0.1	0.2	< 0.05	< 0.1	< 0.001	< 0.5	0.03	54.1	0.6	< 0.1	< 10
031B	< 0.1	0.6	0.1	0.4	< 0.1	0.4	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	4.3	< 0.02	4.70	0.3	0.1	< 10
034	0.5	3.0	0.6	1.7	0.3	1.8	0.3	0.3	< 0.05	0.2	< 0.001	< 0.5	< 0.02	1.60	1.9	0.2	< 10
081	0.6	3.3	0.6	1.5	0.2	1.4	0.2	< 0.1	< 0.05	0.3	< 0.001	0.9	1.20	18.5	12.5	3.1	< 10

Analyte Symbol	Ti	S	P	Li	Be	B	Na	Mg	Al	K	Bi	Ca	Sc	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge
Unit Symbol	%	%	%	ppm	ppm	ppm	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.001	1	0.001	0.1	0.1	1	0.001	0.01	0.01	0.01	0.02	0.01	0.1	1	1	1	0.01	0.1	0.1	0.01	0.1	0.02	0.1
Method Code	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
GXR-1 Meas	0.006	< 1	0.044	5.0	0.8	13	0.044	0.13	0.34	0.03	1410	0.87	0.9	76	7	916	25.0	8.2	41.4	1170	766	1.45	
GXR-1 Cert	0.036	0.257	0.0650	8.20	1.22	15.0	0.0520	0.217	3.52	0.050	1380	0.960	1.58	80.0	12.0	852	23.6	8.20	41.0	1110	760	13.8	
GXR-1 Meas	0.006	< 1	0.041	4.6	0.8	12	0.043	0.13	0.32	0.03	1370	0.82	0.9	73	7	871	24.3	7.8	38.9	1090	713	2.32	
GXR-1 Cert	0.036	0.257	0.0650	8.20	1.22	15.0	0.0520	0.217	3.52	0.050	1380	0.960	1.58	80.0	12.0	852	23.6	8.20	41.0	1110	760	13.8	
DH-1a Meas																							
DH-1a Cert																							
DH-1a Meas																							
DH-1a Cert																							
GXR-4 Meas	0.129	2	0.133	9.8	1.4	5	0.140	1.59	2.90	1.85	19.1	0.90	6.5	78	61	147	3.11	14.0	40.8	6520	70.5	13.3	
GXR-4 Cert	0.29	1.77	0.120	11.1	1.90	4.50	0.564	1.66	7.20	4.01	19.0	1.01	7.70	87.0	64.0	155	3.09	14.6	42.0	6520	73.0	20.0	
GXR-4 Meas	0.132	2	0.134	9.2	1.6	6	0.152	1.64	2.81	1.86	18.9	0.90	6.3	79	63	147	3.15	14.6	38.8	6330	71.3	12.9	
GXR-4 Cert	0.29	1.77	0.120	11.1	1.90	4.50	0.564	1.66	7.20	4.01	19.0	1.01	7.70	87.0	64.0	155	3.09	14.6	42.0	6520	73.0	20.0	
GXR-6 Meas		< 1	0.033	27.8	0.9	7	0.076	0.39	6.79	1.22	0.17	0.15	21.2	157	81	1040	5.35	13.2	22.6	71.0	112	3.63	
GXR-6 Cert		0.0160	0.0350	32.0	1.40	9.80	0.104	0.609	17.7	1.87	0.290	0.180	27.6	186	96.0	1010	5.58	13.8	27.0	66.0	118	35.0	
GXR-6 Meas		< 1	0.035	24.6	0.9	7	0.069	0.37	6.98	1.20	0.15	0.14	19.6	152	79	998	5.25	12.8	22.1	67.7	109	8.64	
GXR-6 Cert		0.0160	0.0350	32.0	1.40	9.80	0.104	0.609	17.7	1.87	0.290	0.180	27.6	186	96.0	1010	5.58	13.8	27.0	66.0	118	35.0	
BL-4a Meas																							
BL-4a Cert																							
BL-4a Meas																							
BL-4a Cert																							
DL-1a Meas																							
DL-1a Cert																							
DL-1a Meas																							
DL-1a Cert																							
OREAS 45d (Aqua Regia) Meas		< 1	0.033	17.1			0.040	0.15	5.55	0.12	0.25	0.10	36.5	170	468	412	13.2	27.3	209	349	31.0	20.4	
OREAS 45d (Aqua Regia) Cert		0.045	0.035	11.9			0.031	0.144	4.860	0.097	0.30	0.09	41.50	201.0	467	400.000	13.650	26.2	176.0	345.0	30.6	17.9	
OREAS 45d (Aqua Regia) Meas		< 1	0.033	15.2			0.037	0.16	5.57	0.11	0.24	0.09	37.6	169	471	393	12.7	25.7	193	325	28.9	18.1	
OREAS 45d (Aqua Regia) Cert		0.045	0.035	11.9			0.031	0.144	4.860	0.097	0.30	0.09	41.50	201.0	467	400.000	13.650	26.2	176.0	345.0	30.6	17.9	
SdAR-M2 (U.S.G.S.) Meas				13.9	4.8						1.10		1.9	17	9			12.3	48.6	252	739	2.32	
SdAR-M2 (U.S.G.S.) Cert				17.9	6.6						1.05		4.1	25.2	49.6			12.4	48.8	236.0000	760	17.6	
SdAR-M2 (U.S.G.S.) Meas				13.0	5.1						1.07		2.1	17	9			11.5	45.0	239	705	2.41	
SdAR-M2 (U.S.G.S.) Cert				17.9	6.6						1.05		4.1	25.2	49.6			12.4	48.8	236.0000	760	17.6	
Method Blank	< 0.001	< 1	< 0.001	< 0.1	< 0.1	2	0.007	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1	< 1	< 1	< 1	< 0.01	< 0.1	< 0.1	0.05	< 0.1	0.05	< 0.1
Method Blank	< 0.001	< 1	< 0.001	< 0.1	< 0.1	2	0.008	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1	< 1	< 1	< 1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.1	0.03	< 0.1

Analyte Symbol	Ti	S	P	Li	Be	B	Na	Mg	Al	K	Bi	Ca	Sc	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge
Unit Symbol	%	%	%	ppm	ppm	ppm	%	%	%	%	ppm	%	ppm	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.001	1	0.001	0.1	0.1	1	0.001	0.01	0.01	0.01	0.02	0.01	0.1	1	1	1	0.01	0.1	0.1	0.01	0.1	0.02	0.1
Method Code	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
Method Blank	< 0.001	< 1	< 0.001	< 0.1	< 0.1	2	0.007	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1	< 1	< 1	< 1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.1	0.05	< 0.1
Method Blank	< 0.001	< 1	< 0.001	< 0.1	< 0.1	2	0.007	< 0.01	< 0.01	< 0.01	< 0.02	< 0.01	< 0.1	< 1	< 1	< 1	< 0.01	< 0.1	< 0.1	< 0.01	< 0.1	< 0.02	< 0.1

Analyte Symbol	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Te	Cs	Ba	La	Ce	Cd	Pr	Nd	Sm	Se	Eu	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.5	0.01	0.1	0.1	0.01	0.002	0.02	0.05	0.02	0.02	0.02	0.5	0.5	0.01	0.01	0.1	0.02	0.1	0.1	0.1	0.1
Method Code	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
GXR-1 Meas	406	2.1	196	25.0	11.1	< 0.1	17.7	30.6	0.74	24.4	76.0	13.4	2.86	249	5.1	10.2	2.49		6.41	1.9	13.9	0.5	3.0
GXR-1 Cert	427	14.0	275	32.0	38.0	0.800	18.0	31.0	0.770	54.0	122	13.0	3.00	750	7.50	17.0	3.30		18.0	2.70	16.6	0.690	4.20
GXR-1 Meas	396	1.9	193	25.1	10.1	0.1	17.5	29.4	0.67	22.9	72.5	11.8	2.55	260	5.0	9.90	2.52		6.19	1.9	13.2	0.4	3.0
GXR-1 Cert	427	14.0	275	32.0	38.0	0.800	18.0	31.0	0.770	54.0	122	13.0	3.00	750	7.50	17.0	3.30		18.0	2.70	16.6	0.690	4.20
DH-1a Meas																							
DH-1a Cert																							
DH-1a Meas																							
DH-1a Cert																							
GXR-4 Meas	97.8	87.0	76.5	10.5	9.9	0.1	293	3.41	0.20	5.51	2.63	0.75	2.44	24.1	49.6	91.2	0.28		39.8	4.8	4.5	1.2	4.4
GXR-4 Cert	98.0	160	221	14.0	186	10.0	310	4.00	0.270	5.60	4.80	0.970	2.80	1640	64.5	102	0.860		45.0	6.60	5.60	1.63	5.25
GXR-4 Meas	99.4	84.9	76.4	10.8	9.5	0.1	302	3.48	0.19	5.37	2.38	0.69	2.19	21.5	49.7	91.1	0.25		38.1	5.7	4.3	1.1	4.3
GXR-4 Cert	98.0	160	221	14.0	186	10.0	310	4.00	0.270	5.60	4.80	0.970	2.80	1640	64.5	102	0.860		45.0	6.60	5.60	1.63	5.25
GXR-6 Meas	227	59.8	32.9	5.86	11.4	< 0.1	0.86	0.266	0.04	0.80	0.66	0.03	3.63	1020	10.1	29.6	0.07		11.7	1.8	< 0.1	0.5	1.8
GXR-6 Cert	330	90.0	35.0	14.0	110	7.50	2.40	1.30	0.260	1.70	3.60	0.0180	4.20	1300	13.9	36.0	1.00		13.0	2.67	0.940	0.760	2.97
GXR-6 Meas	225	56.0	31.7	5.70	13.1	< 0.1	1.07	0.253	0.05	0.77	1.05	0.03	3.10	973	9.8	28.2	0.05		10.9	1.7	< 0.1	0.5	1.6
GXR-6 Cert	330	90.0	35.0	14.0	110	7.50	2.40	1.30	0.260	1.70	3.60	0.0180	4.20	1300	13.9	36.0	1.00		13.0	2.67	0.940	0.760	2.97
BL-4a Meas																							
BL-4a Cert																							
BL-4a Meas																							
BL-4a Cert																							
DL-1a Meas																							
DL-1a Cert																							
DL-1a Meas																							
DL-1a Cert																							
OREAS 45d (Aqua Regia) Meas	2.9	23.5	13.2	4.19					0.07	1.75				92.8	11.3	25.3							
OREAS 45d (Aqua Regia) Cert	6.50	20.9	11.0	5.08					0.085	1.950				80	9.960	24.8							
OREAS 45d (Aqua Regia) Meas	2.8	21.6	12.4	4.22					0.06	1.60				93.4	10.5	23.9							
OREAS 45d (Aqua Regia) Cert	6.50	20.9	11.0	5.08					0.085	1.950				80	9.960	24.8							
SdAR-M2 (U.S.G.S.) Meas		18.2	20.3	15.5	7.9	3.3	12.4						0.90	125	39.4	83.8	4.79	9.0	37.5	5.5		0.6	4.7
SdAR-M2 (U.S.G.S.) Cert		149	144	32.7	259	26.2	13.3						1.82	990	46.6	98.8	5.1	11.0	39.4	7.18		1.44	6.28
SdAR-M2 (U.S.G.S.) Meas		17.7	20.3	16.1	7.9	3.1	12.6						0.80	129	39.2	81.4	4.95	8.9	35.8	5.8		0.5	4.5
SdAR-M2 (U.S.G.S.) Cert		149	144	32.7	259	26.2	13.3						1.82	990	46.6	98.8	5.1	11.0	39.4	7.18		1.44	6.28
Method Blank	< 0.1	< 0.1	< 0.5	< 0.01	< 0.1	< 0.1	0.12	< 0.002	< 0.02	< 0.05	0.03	< 0.02	< 0.02	6.9	< 0.5	< 0.01	< 0.01	< 0.1	< 0.02	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank	< 0.1	< 0.1	< 0.5	< 0.01	< 0.1	< 0.1	0.06	< 0.002	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	6.6	< 0.5	< 0.01	< 0.01	< 0.1	< 0.02	< 0.1	< 0.1	< 0.1	< 0.1

Analyte Symbol	As	Rb	Sr	Y	Zr	Nb	Mo	Ag	In	Sn	Sb	Te	Cs	Ba	La	Ce	Cd	Pr	Nd	Sm	Se	Eu	Gd
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Lower Limit	0.1	0.1	0.5	0.01	0.1	0.1	0.01	0.002	0.02	0.05	0.02	0.02	0.02	0.5	0.5	0.01	0.01	0.1	0.02	0.1	0.1	0.1	0.1
Method Code	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
Method Blank	< 0.1	< 0.1	< 0.5	< 0.01	< 0.1	< 0.1	0.11	< 0.002	< 0.02	< 0.05	0.03	< 0.02	< 0.02	6.1	< 0.5	< 0.01	< 0.01	< 0.1	< 0.02	< 0.1	< 0.1	< 0.1	< 0.1
Method Blank	< 0.1	< 0.1	< 0.5	< 0.01	< 0.1	< 0.1	0.08	< 0.002	< 0.02	< 0.05	< 0.02	< 0.02	< 0.02	6.6	< 0.5	< 0.01	< 0.01	< 0.1	< 0.02	< 0.1	< 0.1	< 0.1	< 0.1

Analyte Symbol	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Th	U	Hg
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppb
Lower Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.1	0.1	10
Method Code	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
GXR-1 Meas	0.6	4.2			0.3	2.1	0.2	0.2	< 0.05	165		3230	0.37	744	1.8	35.6	4040
GXR-1 Cert	0.830	4.30			0.430	1.90	0.280	0.960	0.175	164		3300	0.390	730	2.44	34.9	3900
GXR-1 Meas	0.6	3.7			0.3	2.0	0.2	0.2	< 0.05	152		3340	0.36	709	1.7	33.2	4020
GXR-1 Cert	0.830	4.30			0.430	1.90	0.280	0.960	0.175	164		3300	0.390	730	2.44	34.9	3900
DH-1a Meas															> 200	2510	
DH-1a Cert															910	2629	
DH-1a Meas															> 200	2340	
DH-1a Cert															910	2629	
GXR-4 Meas	0.5	2.4			0.1	0.8	0.1	0.3	< 0.05	12.0		424	2.90	48.2	20.1	5.6	130
GXR-4 Cert	0.360	2.60			0.210	1.60	0.170	6.30	0.790	30.8		470	3.20	52.0	22.5	6.20	110
GXR-4 Meas	0.4	2.4			0.1	0.8	< 0.1	0.3	< 0.05	11.4		606	2.90	47.1	20.1	5.4	120
GXR-4 Cert	0.360	2.60			0.210	1.60	0.170	6.30	0.790	30.8		470	3.20	52.0	22.5	6.20	110
GXR-6 Meas	0.3	1.5				0.8	< 0.1	0.3	< 0.05	< 0.1		81.2	1.93	103	4.5	1.0	70
GXR-6 Cert	0.415	2.80				2.40	0.330	4.30	0.485	1.90		95.0	2.20	101	5.30	1.54	68.0
GXR-6 Meas	0.2	1.3				0.7	< 0.1	0.3	< 0.05	< 0.1		75.6	1.83	94.5	4.1	0.9	70
GXR-6 Cert	0.415	2.80				2.40	0.330	4.30	0.485	1.90		95.0	2.20	101	5.30	1.54	68.0
BL-4a Meas																1220	
BL-4a Cert																1250	
BL-4a Meas																1220	
BL-4a Cert																1250	
DL-1a Meas															82.5	119	
DL-1a Cert															76.0	116	
DL-1a Meas															70.2	108	
DL-1a Cert															76.0	116	
OREAS 45d (Aqua Regia) Meas												16.3		18.3	11.3	1.9	
OREAS 45d (Aqua Regia) Cert												21		17.00	11.3	1.64	
OREAS 45d (Aqua Regia) Meas												13.5		16.7	10.5	1.7	
OREAS 45d (Aqua Regia) Cert												21		17.00	11.3	1.64	
SdAR-M2 (U.S.G.S.) Meas	0.6	3.6	0.7	1.7	0.3	1.7	0.2	0.2	< 0.05	1.0				781	14.0	1.9	1310
SdAR-M2 (U.S.G.S.) Cert	0.97	5.88	1.21	3.58	0.54	3.63	0.54	7.29	1.8	2.8				808	14.2	2.53	1440.00
SdAR-M2 (U.S.G.S.) Meas	0.6	3.1	0.6	1.6	0.2	1.6	0.2	0.2	< 0.05	1.0				754	13.2	1.8	1280
SdAR-M2 (U.S.G.S.) Cert	0.97	5.88	1.21	3.58	0.54	3.63	0.54	7.29	1.8	2.8				808	14.2	2.53	1440.00
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	0.7	< 0.02	< 0.01	< 0.1	< 0.1	20
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	0.5	< 0.02	< 0.01	< 0.1	< 0.1	< 10

Analyte Symbol	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta	W	Re	Au	Tl	Pb	Th	U	Hg
Unit Symbol	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppb
Lower Limit	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.05	0.1	0.001	0.5	0.02	0.01	0.1	0.1	10
Method Code	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS	AR-MS
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	< 0.5	< 0.02	< 0.01	< 0.1	< 0.1	< 10
Method Blank	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.05	< 0.1	< 0.001	< 0.5	< 0.02	< 0.01	< 0.1	< 0.1	< 10

Soil Sampling – McKellar Property